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Navajo Nation Environmental Protection Agency
Navajo Nation Operating Permit Program

Navajo Generating Station (NGS)

No. NN-ROP-05-06

Permit: 2008



NAVAJO NATION ENVIRONMENTAL PROTECTION AGENCY
Office of the Executive Director
Post Office Box 339, Window Rock, AZ 86515
Telephone (928) 871-7692, Fax (928) 871-7996



Dr. Joe Shirley, Jr.
PRESIDENT

Ben Shelley
VICE PRESIDENT

JUL - 3 2008

Deborah Jordan, Director
Air Division
US EPA Region 9
75 Hawthorne Street
San Francisco, CA 94105

Subject: Final Title V Permit for the Navajo Generating Station

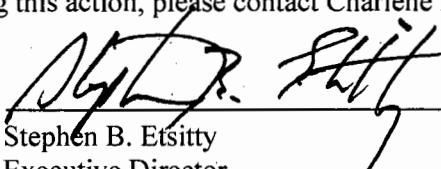
Dear Ms Jordan:

Enclosed is a copy of the Final Permit and Statement of Basis for the Navajo Generating Station located 5 miles East of Page, Arizona on the Navajo Nation. Navajo Nation EPA (NNEPA) intends to issue this permit in accordance with the provisions of Title V of the Clean Air Act; 40 CFR Part 71; Navajo Nation Operating Permit Regulations §§ 404, 405(c)-(e), and subpart VI; 2004 Delegation Agreement § VI(1) and (7); 2006 Supplemental Delegation Agreement; and all other applicable rules and regulations. The Permittee, Navajo Generating Station, is authorized to operate air emission units and to conduct other air pollutant-emitting activities in accordance with the permit conditions listed in this permit.

Notice of the draft permit was published in several local newspapers beginning on January 9, 2008 and ending on February 9, 2008. NNEPA also sent out Affected State letters to Arizona Department of Environmental Quality, New Mexico Environment Department, Utah Department of Environmental Quality, Hopi Indian Tribe, Havasapai Tribe, Ute Mountain Ute Indian Tribe, and Southern Ute Indian Tribe. NNEPA also posted the draft permit on Navajo Nation EPA website. NNEPA received no request for public hearing, two comments during this period and a copy of the comments and responses is attached.

A copy of the final permit will be on file with the Operating Permit Program and on NNEPA's website at: www.navajonationepa.org/airqty/permits.

If you have any questions or comments regarding this action, please contact Charlene Nelson at 928-729-4247.


Stephen B. Etsitty
Executive Director

Navajo Nation Environmental Protection Agency

Cc: Gerardo Rios, US EPA Region IX

SRP

Navajo Generating Station

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- III. Emissions Calculations
- IV. Public Notice/ Responses to Comments



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Ben Shelly
VICE PRESIDENT

TITLE V PERMIT TO OPERATE

<u>PERMIT #:</u>	<u>FACILITY NAME:</u>	<u>LOCATION:</u>	<u>COUNTY:</u>	<u>STATE:</u>
NN-ROP-05-06	NAVAJO GENERATING STATION	PAGE	COCONINO	AZ
<u>ISSUE DATE:</u>	<u>EXPIRATION DATE:</u>	<u>AFS PLANT ID:</u>	<u>PERMITTING AUTHORITY:</u>	
07/03/2008	07/03/2013	04-005-N0423	NNEPA	

ACTION/STATUS: PART 71 OPERATING PERMIT ISSUANCE

Robert K. Talbot, Plant Manager
Navajo Generating Station
P.O. Box 850
Page, Arizona 86040

Re: Issuance of Title V Operating Permit to Navajo Generating Station

Dear Mr. Talbot:


In accordance with the provisions of Title V of the Clean Air Act; 40 CFR Part 71; Navajo Nation Operating Permit Regulations §§ 404, 405(c)-(e), and subpart VI; 2004 Delegation Agreement § VI(1) and (7); 2006 Supplemental Delegation Agreement; and all other applicable rules and regulations, the Permittee, Navajo Generating Station, is authorized to operate air emission units and to conduct other air pollutant-emitting activities in accordance with the permit conditions listed in this permit.

Terms and conditions not otherwise defined in this permit have the same meaning as assigned to them in the referenced regulations. All terms and conditions of the permit are enforceable under the Clean Air Act by U.S. EPA, as well as by persons as defined in the Clean Air Act, and by NNEPA only as provided in the VCA.

This permit is valid for a period of five (5) years and shall expire at midnight on the date five (5) years after the date of issuance unless a timely and complete renewal application has been submitted at least 6 months but not more than 18 months prior to the date of expiration. The permit number cited above should be referenced in future correspondence regarding this facility.

JUL 3 2008

Date


Stephen B. Etsitty
Executive Director
Navajo Nation Environmental Protection Agency

Abbreviations and Acronyms

Administrator	Administrator of the U.S. EPA
AR	Acid Rain
ARP	Acid Rain Program
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
COFA	Close-Coupled Overfire Air
COMS	Continuous Opacity Monitoring System
DC	Dust Collector
EIP	Economic Incentives Program
ESP	Electro Static Precipitator
FGD	Flue Gas Desulfurization
gal	gallon
HAP	Hazardous Air Pollutant
hr	hour
Id. No.	Identification Number
kg	kilogram
lb	pound
MACT	Maximum Achievable Control Technology
MVAC	Motor Vehicle Air Conditioner
Mg	megagram
MMBtu	million British Thermal Units
MW	Megawatts
mo	month
NESHAP	National Emission Standards for Hazardous Air Pollutants
NNEPA	Navajo Nation Environmental Protection Agency
NNOPR	Navajo Nation Operating Permit Regulations
NO _x	Nitrogen Oxides
NSPS	New Source Performance Standards
NSR	New Source Review
PM	Particulate Matter
PM-10	Particulate matter less than 10 microns in diameter
ppm	parts per million
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
psia	pounds per square inch absolute
RMP	Risk Management Plan
SNAP	Significant New Alternatives Program
SO ₂	Sulfur Dioxide
TSP	Total Suspended Particulate
US EPA	United States Environmental Protection Agency
VCA	Voluntary Compliance Agreement
VOC	Volatile Organic Compounds

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Attachment A

Phase II Acid Rain Permit Renewal

I. Source Identification

- Managing Participant Name: Salt River Project Agricultural Improvement and Power District (SRP)*
- Managing Participant Mailing Address: P.O. Box 52025, PAB 352
Phoenix, Arizona 85072-2025

*Note: This facility is co-owned by 6 entities. SRP is listed as the managing participant in this permit since they act as the facility operator, and have accepted the responsibility to obtain environmental permits for Navajo Generating Station, including an Acid Rain permit and Part 71 Permit. In addition to SRP, the other 5 co-owners of this facility are:

- Los Angeles Department of Water and Power (LADWP)
 - Arizona Public Service Company (APS)
 - Tucson Electric Power (TEP)
 - Nevada Power Company (NPC)
 - U.S. Bureau of Reclamation (USBR)
- Plant Name: Navajo Generating Station
 - Plant Location: 5 miles east of Page, AZ off U.S. Highway 98
Page, Arizona
 - County: Coconino, Arizona
 - EPA Region: 9
 - Reservation: Navajo Nation
 - Tribe: Navajo
 - Company Contact: Paul Ostapuk Phone: (928) 645-6577
 - Responsible Official: Robert K. Talbot Phone: (928) 645-6217
 - EPA Contact: Roger Kohn Phone: (415) 972-3973
 - Tribal Contacts: Eugenia Quintana Phone: (928) 871-7800
Charlene Nelson Phone: (928) 729-4247
 - SIC Code: 4911
 - AFS Plant Identification Number: 04-005-N0423
 - Description of Process: The facility is 2,250 Net Megawatts coal fired power plant.
 - Significant Emission Units:

Unit ID/ Stack ID	Unit Description	Maximum Capacity	Commenced Construction Date	Control Method
U1/ Stack S1	One (1) pulverized coal-fired boiler, using No. 2 fuel oil for ignition fuel. Stack S1 is equipped with SO ₂ and NO _x CEMS, and a COMS.	7,725 MBtu/hr; 750 Net MW	1970	COFA; FGD system SCBR1 (1999); ESP1
U2/ Stack S2	One (1) pulverized coal-fired boiler, using No. 2 fuel oil for ignition fuel. Stack S2 is equipped with SO ₂ and NO _x CEMS, and a COMS.	7,725 MBtu/hr; 750 Net MW	1970	COFA; FGD system SCBR2 (1998); ESP2

Unit ID/ Stack ID	Unit Description	Maximum Capacity	Commenced Construction Date	Control Method
U3/ Stack S3	One (1) pulverized coal-fired boiler, using No. 2 fuel oil for ignition fuel. Stack S3 is equipped with SO ₂ and NO _x CEMS, and a COMS.	7,725 MBtu/hr; 750 Net MW	1970	COFA; FGD system SCBR3 (1997); ESP3
AUX A	One (1) auxiliary boiler; using No. 2 fuel oil as fuel	308 MMBtu/hr	1970	N/A
AUX B	One (1) auxiliary boiler; using No. 2 fuel oil as fuel	308 MMBtu/hr	1970	N/A
Coal Handling Operations				
CT1	One (1) railcar unloading operation	10,000 tons/hr	1970	N/A
L1 - L12	Twelve (12) hopper feeders	2,400 tons/hr (total)	1970	N/A
BC-1 through BC-4	Four (4) conveyors to the yard surge bin	1,800 tons/hr (each)	1970	DC-8
BC-4A	One (1) conveyor to the batch weight system	100 tons/hr	1970	DC-8
BFD-5A, BC-5	Two (2) reclaim conveyors	1,800 tons/hr (each)	1970	DC-8
BC-6	One (1) conveyor to the yard surge bin	1,500 tons/hr	1970	DC-8
BC-6A through BC-6C	Three (3) conveyors to the stacker/reclaimer	1,800 tons/hr (each)	1970	N/A
BC-7	One (1) conveyor to the emergency reclaim hopper	1,500 tons/hr	1970	N/A
YSB-1	One (1) yard surge bin	1,800 tons/hr	1970	DC-8
BC-8A BC-8B	Two (2) conveyors to plant surge bin	1,500 tons/hr (each)	1970	DC-8
PSB-1	One (1) plant surge bin	3,000 tons/hr	1970	DC-5
BC-9A BC-9B	Two (2) conveyors to the coal silos for boilers U1 and U2	1,500 tons/hr (each)	1970	DC-5
BC-10A BC-10B	Two (2) conveyors to the coal silos for boiler U3	1,500 tons/hr (each)	1970	DC-5
CC-1A through CC-9A; CC-1B through CC-9B	Three (3) enclosed cascading conveying systems to the coal storage silos for boilers U1, U2, and U3	1,500 tons/hr (each)	1970	DC-1 through DC-4, DC-6, and DC-7
Silos 1A through 1G	Seven (7) storage silos for boiler U1	3,000 tons/hr (each)	1970	DC-1, DC-2, and baghouse PR-1.
Silos 2A through 2G	Seven (7) storage silos for boiler U2	3,000 tons/hr (each)	1970	DC-3, DC-4, and baghouse PR-2.
Silos 3A through 3G	Seven (7) storage silos for boiler U3	3,000 tons/hr (each)	1970	DC-6, DC-7, and baghouse PR-3.
CS	Outdoor coal storage piles	3,300 tons/hr (total)	1970	water suppression
Limestone handling system associated with the FGD systems				
Unloading Bay A and B	Two (2) truck unloading operations	38 tons/hr (each)	1997	N/A
O-LSH- HOP-A	One (1) limestone unloading hopper	300 tons/hr	1997	DC-9
O-LSH- HOP-B	One (1) limestone unloading hopper	300 tons/hr	1997	DC-10

Unit ID/ Stack ID	Unit Description	Maximum Capacity	Commenced Construction Date	Control Method
O-LSH-FDR-A	One (1) conveyor	300 tons/hr	1997	DC-9
O-LSH-FDR-B	One (1) conveyor	300 tons/hr	1997	DC-10
O-LSH-CNV-A	One (1) conveyor	300 tons/hr	1997	DC-9
O-LSH-CNV-B	One (1) conveyor	300 tons/hr	1997	DC-10
O-LSH-SILO-A and B	Two (2) limestone storage silos	300 tons/hr (each)	1997	DC-11
O-LSP-FDR-A and B	Two (2) enclosed feeders to the slurry preparation system	36 tons/hr (each)	1997	N/A
O-LSP-CNV-A and B	Two (2) enclosed cleanout conveyors	5 tons/hr (each)	1997	N/A
O-LSP-MILL-A and B	Two (2) ball mills	36 tons/hr (each)	1997	N/A
LS	Limestone storage piles	600 tons/hr (total)	1997	water suppression
Fly ash handling system				
Silo 1	One (1) fly ash bin for boilers U1 and U2	46 tons/hr	1970	DC-TD and DC-S1/2
Silo 2	One (1) fly ash bin for boiler U3	46 tons/hr	1970	DC-S3
Silo 1 and 2 Loading	Two (2) partially enclosed fly ash truck loading operations	38 tons/hr (each)	1970	N/A
DWB-A through DWB-F	Six (6) bottom ash truck loading operations. The bottom ash is processed in a wet form	46 tons/hr (each)	1970	N/A
Soda ash/lime handling systems				
SAB-1A, SAB-2A, SAB-1B, SAB-2B	Four (4) soda ash storage bins	0.4 tons/hr (each)	1970	dust collector BH-6
LB-1 and LB-2	Two (2) lime storage bins	0.57 tons/hr (each)	1970	dust collector BH-7
Miscellaneous Operations				
	Six (6) cooling towers	813,000 gal/min (total)	1970	N/A
TR	Fugitive emissions from unpaved roads	N/A	1970	water suppression

II. Requirements for Specific Units

II.A. Acid Rain Requirements [40 CFR Parts 72, 73, and 75; Phase II Acid Rain Permit]

The permittee shall comply with the requirements listed in the attached acid rain permit renewal (see Attachment A).

II.B. Visibility Federal Implementation Plan Requirements [40 CFR § 52.145(d)]

1. Definitions. The following definitions apply to section II.B of this permit [40 CFR § 52.145(d)(1)]:
 - a. "Administrator" means the Administrator of EPA or his/her designee.
 - b. "Affected Unit(s)" means the steam-generating unit(s) at the Navajo Generating Station, all of which are subject to the emission limitation in section II.B(2) of this permit, that has accumulated at least 365 boiler operating days since the passage of the date defined in section II.B(6) of this permit.
 - c. "Boiler Operating Day" for each of the boiler units at the Navajo Generating Station is defined as a 24-hour calendar day (the period of time between 12:01 a.m. and 12:00 midnight in Page, Arizona) during which coal is combusted in that unit for the entire 24 hours.
 - d. "Owner or Operator" means the owner, participant in, or operator of the Navajo Generating Station to which this paragraph is applicable.
 - e. "Unit-Week of Maintenance" means a period of 7 days during which a fossil fuel-fired steam-generating unit is under repair, and no coal is combusted in the unit.
2. Emission limitation. No owner or operator shall discharge or cause the discharge of sulfur oxides into the atmosphere in excess of 42 ng/J [0.10 pound per million British thermal units (lb/MMBtu)] heat input [40 CFR § 52.145(d)(2)].
3. Compliance determination. Compliance with the emission limit in Condition II.B(2) of this permit shall be determined daily on a plant-wide rolling annual basis as follows [40 CFR § 52.145(d)(3)]:
 - a. For each boiler operating day at each steam generating unit subject to the emission limitation in Condition II.B(2) of this permit, the owner or operator shall record the unit's hourly SO₂ emissions using the data from the continuous emission monitoring systems, required in Condition II.B(4) of this permit and the daily electric energy generated by the unit (in megawatt-hours) as measured by the megawatt-hour meter for the unit.
 - b. Compute the average daily SO₂ emission rate in ng/J (lb/MMBtu) following the procedures set out in Method 19, Appendix A, 40 CFR Part 60 in effect on October 3, 1991.

- c. For each boiler operating day for each affected unit, calculate the product of the daily SO₂ emission rate (computed according to Condition II.B(3)(b) of this permit) and the daily electric energy generated (recorded according to Condition II.B(3)(a) of this permit) for each unit.
 - d. For each affected unit, identify the previous 365 boiler operating days to be used in the compliance determination. Except as provided in Condition II.B(7) of this permit, all of the immediately preceding 365 boiler operating days will be used for compliance determinations.
 - e. Sum, for all affected units, the products of the daily SO₂ emission rate-electric energy generated (as calculated according to Condition II.B(3)(c) of this permit) for the boiler operating days identified in Condition II.B(3)(d) of this permit.
 - f. Sum, for all affected units, the daily electric energy generated (recorded according to Condition II.B(3)(a) of this permit) for the boiler operating days identified in Condition II.B(3)(d) of this permit.
 - g. Calculate the weighted plant-wide annual average SO₂ emission rate by dividing the sum of the products determined according to Condition II.B(3)(e) of this permit by the sum of the electric energy generated determined according to Condition II.B(3)(f) of this permit.
 - h. The weighted plant-wide annual average SO₂ emission rate shall be used to determine compliance with the emission limitation in Condition II.B(2) of this permit.
4. Continuous emission monitoring. The owner or operator shall install, maintain, and operate continuous emission monitoring systems to determine compliance with the emission limitation in Condition II.B(2) of this permit as calculated in Condition II.B(3) of this permit. This equipment shall meet the specifications in Appendix B of 40 CFR 60 in effect on October 3, 1991. The owner or operator shall comply with the quality assurance procedures for continuous emission monitoring systems found in Appendix F of 40 CFR 60 in effect on October 3, 1991 [40 CFR § 52.145(d)(4)].
5. Reporting requirements. For each steam generating unit subject to the emission limitation in Condition II.B(2) of this permit, the owner or operator [40 CFR § 52.145(d)(5)]:
- a. Shall furnish the Administrator written notification, on a quarterly basis, on emissions of SO₂, and either oxygen or carbon dioxide, according to the procedures found in 40 CFR § 60.7 in effect on October 3, 1991.
 - b. Shall furnish the Administrator written notification of the daily electric energy generated in megawatt-hours.

- c. Shall maintain records according to the procedures in 40 CFR § 60.7 in effect on October 3, 1991.
 - d. Shall notify the Administrator by telephone, or in writing, or electronic mail sent to r9.aeo@epa.gov, within one business day of any outage of the control system needed for compliance with the emission limitation in Condition II.B(2) of this permit and shall submit a follow-up written report within 30 days of the repairs stating how the repairs were accomplished and justifying the amount of time taken for the repairs.
- 6. Compliance dates. The requirements of Section II.B of this permit shall be applicable to all units at this facility beginning on August 19, 1999 [40 CFR § 52.145(d)(6)].
 - 7. Exclusion for catastrophic failure. In addition to the exclusion of periods allowed in Condition II.B(7) of this permit, any periods of emissions from an affected unit for which the Administrator finds that the control equipment or system for such unit is out of service because of catastrophic failure of the control system which occurred for reasons beyond the control of the owner or operators and could not have been prevented by good engineering practices will be excluded from the compliance determination. Events which are the consequence of lack of appropriate maintenance or of intentional or negligent conduct or omissions of the owner or operators or the control system design, construction, or operating contractors do not constitute catastrophic failure [40 CFR § 52.145(d)(10)].
 - 8. Equipment operation. The owner or operator shall optimally operate all equipment or systems needed to comply with the requirements of this paragraph consistent with good engineering practices to keep emissions at or below the emission limitation in Condition II.B(2) of this permit, and following outages of any control equipment or system the control equipment or system will be returned to full operation as expeditiously as practicable [40 CFR § 52.145(d)(11)].
 - 9. Maintenance scheduling. On March 16 of each year starting in 1993, the owner or operator shall prepare and submit to the Administrator a long-term maintenance plan for the Navajo Generating Station which accommodates the maintenance requirements for the other generating facilities on the Navajo Generating Station grid covering the period from March 16 to March 15 of the next year and showing at least 6 unit-weeks of maintenance for the Navajo Generating Station during the November 1 to March 15 period, except as provided in Condition II.B(10) of this permit. This plan shall be developed consistent with the criteria established by the Western Electric Coordinating Council of the North American Electric Reliability Council to ensure an adequate reserve margin of electric generating capacity. At the time that a plan is transmitted to the Administrator, the owner or operator shall notify the Administrator in writing if less than the full scheduled unit-weeks of maintenance were conducted for the period covered by the previous plan and shall furnish a written report stating how that year qualified for one of the exceptions identified in Condition II.B(10) of this permit [40 CFR § 52.145(d)(12)].
 - 10. Exceptions for maintenance scheduling. The owner or operator shall conduct a full 6 unit-weeks of maintenance in accordance with the plan required in

Condition II.B(9) of this permit unless the owner or operator can demonstrate to the satisfaction of the Administrator that a full 6 unit-weeks of maintenance during the November 1 to March 15 period should not be required because of the following [40 CFR § 52.145(d)(13)]:

- a. There is no need for 6 unit-weeks of scheduled periodic maintenance in the year covered by the plan;
 - b. The reserve margin on any electrical system served by the Navajo Generating Station would fall to an inadequate level, as defined by the criteria referred to in Condition II.B(9) of this permit.
 - c. The cost of compliance with this requirement would be excessive. The cost of compliance would be excessive when the economic savings to the owner or operator of moving maintenance out of the November 1 to March 15 period exceeds \$50,000 per unit-day of maintenance moved.
 - d. A major forced outage at a unit occurs outside of the November 1 to March 15 period, and necessary periodic maintenance occurs during the period of forced outage.
11. If the Administrator determines that a full 6 unit-weeks of maintenance during the November 1 to March 15 period should not be required, the owner or operator shall nevertheless conduct that amount of scheduled maintenance that is not precluded by the Administrator. Generally, the owner or operator shall make best efforts to conduct as much scheduled maintenance as practicable during the November 1 to March 15 period. [40 CFR § 52.145(d)(13)]

II.C. NSPS General Provisions

The following requirements apply to the operation, maintenance, and testing the affected facilities in the limestone handling system in accordance with 40 CFR Part 60, Subparts A and OOO ("Standards of Performance for Non-Metallic Mineral Processing Plants"):

1. All requests, reports, applications, submittals, and other communications to the NNEPA pursuant to 40 CFR Part 60 shall be submitted in duplicate to the EPA Region 9 office at the following address [40 CFR § 60.4(a)]:

Director, Air Division (Attn: AIR-1)
EPA Region IX
75 Hawthorne Street
San Francisco, CA 94105
2. Any owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative [40 CFR § 60.7(b)].

3. The availability to the public of information provided to, or otherwise obtained by, the EPA Administrator under this permit shall be governed by 40 CFR § 2 (Information submitted voluntarily to the Administrator for the purposes of compliance with 40 CFR §§ 60.5 and 60.6 is governed by 40 CFR §§ 2.201 through § 2.213 and not by 40 CFR § 2.301.) [40 CFR § 60.9].
4. Compliance with the particulate matter standard listed in Conditions II.D(1)(a) and II.D(5) of this permit shall be determined in accordance with performance tests established by 40 CFR § 60.8, unless otherwise specified [40 CFR § 60.11(a)].
5. Compliance with the opacity standards listed in Conditions II.D(1)(b), II.D(2), II.D(3), II.D(5), and II.D(6) of this permit shall be determined by conducting observations in accordance with Reference Method 9 in Appendix A of 40 CFR § 60, any alternative method that is approved by the Administrator, or as provided in paragraph 40 CFR § 60.11(e)(5) [40 CFR § 60.11(b)].
6. The opacity standards in Conditions II.D(1)(b), II.D(2), II.D(3), and II.D(4) shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in 40 CFR Part 60, Subpart OOO [40 CFR § 60.11(c)].
7. At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected facilities including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source [40 CFR § 60.11(d)].
8. For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in 40 CFR § 60, nothing in 40 CFR § 60 shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed [40 CFR § 60.11(g)].
9. No owner or operator subject to the provisions of 40 CFR § 60 shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere [40 CFR § 60.12].
10. With respect to compliance with all New Source Performance Standards (NSPS) of 40 CFR § 60, the permittee shall comply with the "General notification and reporting requirements" found in 40 CFR § 60.19 [40 CFR § 60.19].

11. The permittee shall provide written notification to NNEPA and US EPA or, if acceptable to NNEPA, US EPA and the permittee, electronic notification of any reconstruction of an affected facility, or any physical or operational change to an affected facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under this permit or in 40 CFR § 60.14(e), in accordance with 40 CFR § 60.7 [40 CFR § 60.7(a)].

II.D. NSPS, Subpart OOO Requirements

The following requirements apply to the affected facilities in the limestone handling system in accordance with 40 CFR Part 60, Subpart OOO ("Standards of Performance for Non-Metallic Mineral Processing Plants"):

1. The permittee shall not cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any stack emissions which [40 CFR § 60.672(a)]:
 - a. Contain particulate matter in excess of 0.05 g/dscm (0.022 gr/ dscf), and
 - b. Exhibit greater than 7 percent opacity.
2. The permittee shall not cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any fugitive emissions which exhibit greater than 10 percent opacity [40 CFR § 60.672(b)].
3. The permittee shall not cause to be discharged into the atmosphere from any crusher, at which a capture system is not used, fugitive emissions which exhibit greater than 15 percent opacity [40 CFR § 60.672(c)].
4. Truck dumping of nonmetallic minerals into any screening operation, feed hopper or crusher is exempt from the requirements of this section [40 CFR § 60.672(d)].
5. If any transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each enclosed affected facility must comply with the emission limits in Conditions II.D.1, II.D.2, and II.D.3, or the building enclosing the affected facility or facilities must comply with the following emission limits:
 - (i) The permittee shall not cause to be discharged into the atmosphere from any building enclosing any transfer point on a conveyor belt or any other affected facility any visible fugitive emissions except emissions from a vent as defined in 40 CFR § 60.671 [40 CFR § 60.672(e)(1)].
 - (ii) The permittee shall not cause to be discharged into the atmosphere from any vent of any building enclosing any transfer point on a conveyor belt or any other affected facility emissions which exceed the stack emissions limits in Condition II.D(1) [40 CFR § 60.672(e)(2)].
6. The permittee shall not cause to be discharged into the atmosphere from any baghouse that controls emissions from only an individual, enclosed storage bin,

stack emissions which exhibit greater than 7 percent opacity [40 CFR § 60.672(f)].

II.E. Monitoring and Testing Requirements

Pursuant to the First Reopening to Navajo Generating Station's first Part 71 Permit, issued on November 13, 2003, the permittee shall comply with the following:

1. Once per five year permit term, and at such other times as specified by NNEPA, the permittee shall conduct performance tests for particulate matter emissions from the exhaust stacks of baghouses DC-9, DC-10, and DC-11 using EPA Method 5 or Method 17, and furnish US EPA and NNEPA a written report of the results of such test. The tests shall be conducted at the maximum operating capacity of the facility being tested. Upon written request (Attn: AIR-5) from the permittee, NNEPA may approve the conducting of performance tests at a lower specified production rate. In addition to testing once per five year permit term, if during any 12 consecutive month period visible emissions are observed three times from any one baghouse, the permittee shall conduct a performance test on that baghouse within 120 days of the third observation. All observations of visible emissions by the permittee, US EPA, or NNEPA shall count toward the 12 month total [40 CFR § 71.6(a)(3)].
2. The permittee shall conduct a weekly visual emission survey of the exhaust stacks of baghouses DC-9, DC-10, and DC-11. The weekly survey shall be conducted while the equipment is operating, and during daylight hours, by a person certified in EPA Method 9 (Visual Determination of the Opacity of Emissions from Stationary Sources). If any visible emissions are observed, the permittee shall conduct an opacity test using EPA Method 9 within 24 hours while the equipment is operating in accordance with 40 CFR § 60.675 [40 CFR § 71.6(a)(3)].
3. For each visible emission observation or Method 9 opacity test, the permittee shall record and maintain the following records:
 - a. the date and time of the observation, and the name of the observer.
 - b. the unit ID number.
 - c. statement of whether visible emissions were detected, and if so, whether they were observed continuously or intermittently.
 - d. results of Method 9 test, if required.

II.F. Operational Flexibility

1. **Clean Air Act Section 502(b)(10) Changes** [40 CFR § 71.6(a)(13)(i)] [NNOPR § 404(A)]
 - a. The permittee may make Clean Air Act Section 502(b)(10) changes without applying for a permit revision if those changes do not cause the facility to exceed emissions allowable under this permit (whether

expressed as a rate of emissions or in terms of total emissions) and are not modifications under Title I of the Clean Air Act. This class of changes does not include:

- i. Changes that would violate applicable requirements; or
 - ii. Changes that would contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
- b. For each proposed § 502(b)(10) change, the permittee shall provide written notification to the Director and the Administrator at least 7 days in advance of the proposed change. Such notice shall state when the change will occur and shall describe the change, any resulting emissions change, and any permit terms or conditions made inapplicable as a result of the change. The permittee shall attach each notice to its copy of this permit.
- c. Any permit shield provided in this permit shall not apply to any change made under this provision.

III. Facility-Wide or Generic Permit Requirements

Conditions in this section of the permit (Section III) apply to all emissions units located at the facility [See 40 CFR § 71.6(a)(1)].

III.A. Testing Requirements [40 CFR § 71.6(a)(3)]

In addition to the unit specific testing requirements derived from the applicable requirements for each individual unit contained in Section II of this permit, the permittee shall comply with the following generally applicable testing requirements as necessary to ensure that the required tests are sufficient for compliance purposes:

- 1. Submit to NNEPA a source test plan 30 days prior to any required testing. The source test plan shall include and address the following elements:
 - 1.0 Purpose of the test
 - 2.0 Source Description and Mode of Operation During Test
 - 3.0 Scope of Work Planned for Test
 - 4.0 Schedule/Dates
 - 5.0 Process Data to be Collected During Test
 - 6.0 Sampling and Analysis Procedures
 - 6.1 Sampling Locations
 - 6.2 Test Methods
 - 6.3 Analysis Procedures and Laboratory Identification
 - 7.0 Quality Assurance Plan
 - 7.1 Calibration Procedures and Frequency
 - 7.2 Sample Recovery and Field Documentation
 - 7.3 Chain of Custody Procedures
 - 7.4 QA/QC Project Flow Chart
 - 8.0 Data Processing and Reporting
 - 8.1 Description of Data Handling and QC Procedures
 - 8.2 Report Content

2. Unless otherwise specified by an applicable requirement or permit condition in Section II, all source tests shall be performed at maximum operating rates (90% to 110% of device design capacity).
3. Only regular operating staff may adjust the processes or emission control device parameters within two (2) hours before or during a compliance source test. All adjustments must be logged and a copy of the log submitted with the test report. No adjustments are to be made within two (2) hours before the start of the tests or during a test, if those adjustments are a result of consultation before or during the tests with source testing personnel, equipment vendors, or consultants. Such adjustments may render the source test invalid.
4. During each test run and for two (2) hours prior to the test and two (2) hours after the completion of the test, the permittee shall record the following information:
 - a. Visible emissions.
 - b. All parametric data which is required to be monitored in Section II for the emission unit being tested.
5. Each source test shall consist of at least three (3) valid test runs and the emission results shall be reported as the arithmetic average of all valid test runs and in the terms of the emission limit. There must be at least 3 valid test runs, unless otherwise specified.
6. Source test reports shall be submitted to NNEPA and U.S. EPA within 60 days of completing any required source test.

III.B. Recordkeeping Requirements [40 CFR § 71.6 (a)(3)(ii)]

In addition to the unit specific recordkeeping requirements derived from the applicable requirements for each individual unit and contained in Section II, the permittee shall comply with the following generally applicable recordkeeping requirements:

1. The permittee shall keep records of required monitoring information that include the following:
 - a. The date, place, and time of sampling or measurements;
 - b. The date(s) analyses were performed;
 - c. The company or entity that performed the analyses;
 - d. The analytical techniques or methods used;
 - e. The results of such analyses; and
 - f. The operating conditions as existing at the time of sampling or measurement.

2. The permittee shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.
3. The permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR § 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least five years following the date of such measurements, maintenance, reports and records [40 CFR § 71.6(a)(3)(ii), 40 CFR § 60.7(f)].

III.C. Reporting Requirements [40 CFR § 71.6 (a)(3)(iii)]

1. The permittee shall submit to NNEPA and EPA Region 9 reports of any monitoring required under 40 CFR § 71.6(a)(3)(i)(A), (B), or (C) each six month reporting period from January 1 to June 30 and from July 1 to December 31. All reports shall be submitted to NNEPA and US EPA and shall be postmarked by the 30th day following the end of the reporting period. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with Condition III.C.4. of this permit.
 - a. A monitoring report under this section must include the following:
 - (i) The company name and address.
 - (ii) The beginning and ending dates of the reporting period.
 - (iii) The emissions unit or activity being monitored.
 - (iv) The emissions limitation or standard, including operational requirements and limitations (such as parameter ranges), specified in the permit for which compliance is being monitored.
 - (v) All instances of deviations from permit requirements, including those attributable to upset conditions as defined in the permit and including exceedances as defined under 40 CFR § 64, and the date on which each deviation occurred.
 - (vi) If the permit requires continuous monitoring of an emissions limit or parameter range, the report must include the total operating time of the emissions unit during the reporting period, the total duration of excess emissions or parameter exceedances during the reporting

period, and the total downtime of the continuous monitoring system during the reporting period.

- (vii) If the permit requires periodic monitoring, visual observations, work practice checks, or similar monitoring, the report shall include the total time when such monitoring was not performed during the reporting period and at the source's discretion either the total duration of deviations indicated by such monitoring or the actual records of deviations.
 - (viii) All other monitoring results, data, or analyses required to be reported by the applicable requirement.
 - (ix) The name, title, and signature of the responsible official who is certifying to the truth, accuracy, and completeness of the report.
- b. Any report required by an applicable requirement that provides the same information described in paragraph III.C(1)(a)(i) through (ix) above shall satisfy the requirement under III.C(1)(a).
- c. "Deviation," means any situation in which an emissions unit fails to meet a permit term or condition. A deviation is not always a violation. A deviation can be determined by observation or through review of data obtained from any testing, monitoring, or record keeping established in accordance with 40 CFR §§ 71.6(a)(3)(i) and (a)(3)(ii). For a situation lasting more than 24 hours, each 24-hour period is considered a separate deviation. Included in the meaning of deviation are any of the following:
- (i) A situation when emissions exceed an emission limitation or standard;
 - (ii) A situation where process or emissions control device parameter values indicate that an emission limitation or standard has not been met;
 - (iii) A situation in which observations or data collected demonstrate noncompliance with an emission limitation or standard or any work practice or operating condition required by the permit.
 - (iv) A situation in which an exceedance, as defined in the compliance assurance plan (40 CFR § 64), occurs.
2. The permittee shall promptly report to the NNEPA and EPA Regional Office deviations from permit requirements, including those attributable to upset conditions as defined in this permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. "Prompt" is defined as follows:

- a. Any definition of "Prompt" or a specific timeframe for reporting deviations provided in an underlying applicable requirement as identified in this permit;
- b. Where the underlying applicable requirement does not define prompt or provide a timeframe for reporting deviations, reports of deviations will be submitted based on the following schedule:
 - (i) For emissions of a hazardous air pollutant or a toxic air pollutant (as identified in the applicable regulation) that continue for more than an hour in excess of permit requirements, the report must be made by telephone, verbal, or facsimile communication within 24 hours of the occurrence.
 - (ii) For emissions of any regulated pollutant excluding a hazardous air pollutant or a toxic air pollutant that continue for more than two hours in excess of permit requirements, the report must be made by telephone, verbal, or facsimile communication within 48 hours of the occurrence.
 - (iii) For all other deviations from permit requirements, the report shall be submitted with the semi-annual monitoring report required in paragraph III.C(1) of this permit.
- 3. If any of the Conditions in III.C(2)(b)(i) or (ii) of this permit are met, the source must notify NNEPA and US EPA by telephone, facsimile, or electronic mail sent to charlenenelson@navajo.org and EPA is r9.aeo@epa.gov, based on the timetable listed. A written notice, certified consistent with paragraph III.C(4) of this permit section must be submitted within 10 working days of the occurrence. All deviations reported under this section must also be identified in the 6-month report required under paragraph III.C(1) of this section.
- 4. Any application form, report, or compliance certification required to be submitted by this permit shall contain certification by a responsible official of truth, accuracy, and completeness. All certifications shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

III.D. Protection of Stratospheric Ozone [40 CFR § 82]

- 1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR § 82, Subpart E:
 - a. All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a Class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to 40 CFR § 82.106.

- b. The placement of the required warning statement must comply with the requirements pursuant to 40 CFR § 82.108.
 - c. The form of the label bearing the required warning statement must comply with the requirements pursuant to 40 CFR § 82.110.
 - e. No person may modify, remove, or interfere with the required warning statement except as described in 40 CFR § 82.112.
2. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR § 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:
- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR § 82.156.
 - b. Equipment used during maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR § 82.158.
 - c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR § 82.161.
 - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with recordkeeping requirements pursuant to 40 CFR § 82.166. ("MVAC-like appliance" as defined at 40 CFR § 82.152)
 - e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to 40 CFR § 82.156.
 - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of when the refrigerant was purchased and added to such appliances pursuant to 40 CFR § 82.166.
3. If the permittee manufactures, transforms, destroys, imports, or exports a Class I or Class II substance, the permittee is subject to all the requirements as specified in 40 CFR § 82, Subpart A, Production and Consumption Controls.
4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR § 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system

used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.

5. The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR § 82, Subpart G.

III.E. Asbestos from Demolition and Renovation [40 CFR § 61, Subpart M]

The permittee shall comply with the requirements of Sections 61.140 through 61.157 of the National Emission Standard for Asbestos for all demolition and renovation projects [40 CFR § 61, Subpart M].

III.F. Compliance Schedule [40 CFR §§ 71.5(c)(8)(iii) and 71.6(c)(3)]

1. For applicable requirements with which the source is in compliance, the source will continue to comply with such requirements.
2. For applicable requirements that will become effective during the permit term, the source shall meet such requirements on a timely basis.

IV. Title V Administrative Requirements

IV.A. Fee Payment [NNOPR Subpart VI] [40 CFR § 71.6(a)(7) and § 71.9]

1. The permittee shall pay an annual permit fee in accordance with the procedures outlined below. [NNOPR Subpart VI §§ 603(A) and (B)]
 - a. The permittee shall pay the annual permit fee by April 1 of each year.
 - b. Fee payments shall be in remitted in the form of a money order or certified check made payable to the Navajo Nation Environmental Protection Agency.
 - c. The permittee shall send the fee payment to:

Navajo Nation EPA Air Quality Control Program
Operating Permit Program
P.O. Box 529
Fort Defiance, AZ 86504
2. The permittee shall submit a fee calculation worksheet form with the annual permit fee by April 1 of each year. Calculations of actual or estimated emissions and calculation of the fees owed shall be computed on the fee calculation worksheets provided by the EPA. Fee payment of the full amount must accompany each fee calculation worksheet. [NNOPR Subpart VI § 603(A)]
3. The fee calculation worksheet shall be certified by a responsible official consistent with 40 CFR § 71.5(d). [40 CFR § 71.6(a)(7) and § 71.9(e)(3)]
4. Basis for calculating annual fee:

The annual emissions fee shall be calculated by multiplying the total tons of actual emissions of all fee pollutants emitted from the source by the applicable emissions fee (in dollars/ton) in effect at the time of calculation. Emissions of any regulated air pollutant that already are included in the fee calculation under a category of regulated pollutant, such as a federally listed hazardous air pollutant that is already accounted for as a VOC or as PM10, shall be counted only once in determining the source's actual emissions. [NNOPR Subpart VI §§ 602(A) and (B)(1)]

- a. "Actual emissions" means the actual rate of emissions in tpy of any fee pollutant emitted from a part 71 source over the preceding calendar year. Actual emissions shall be calculated using each emissions unit's actual operating hours, production rates, in-place control equipment, and types of materials processed, stored, or combusted during the preceding calendar year. Actual emissions shall not include emissions of any one fee pollutant in excess of 4,000 TPY, or any emissions that come from insignificant activities [NNOPR Subpart I § 102(5)].
 - b. Actual emissions shall be computed using methods required by the permit for determining compliance, such as monitoring or source testing data [40 CFR § 71.6(a)(7) and § 71.9(e)(2)].
 - c. If actual emissions cannot be determined using the compliance methods in the permit, the permittee shall use other federally recognized procedures [40 CFR § 71.6(a)(7) and § 71.9(e)(2)].
 - d. The term "fee pollutant" is defined in NNOPR Subpart I § 102(24).
 - e. The term "regulated air pollutant" is defined in NNOPR Subpart I § 102(50), except that for purposes of this permit the term does not include any pollutant that is regulated solely pursuant to 4 N.N.C. § 1121 nor does it include any hazardous air pollutant designated by the Director pursuant to 4 N.N.C. § 1126(B).
 - f. The permittee should note that the applicable fee is revised each year to account for inflation, and it is available from NNEPA starting on March 1 of each year.
 - g. The total annual fee due shall be the greater of the applicable minimum fee and the sum of subtotal annual fees for all fee pollutants emitted from the source. [NNOPR Subpart VI § 602(B)(2)]
5. The permittee shall retain, in accordance with the provisions of 40 CFR § 71.6(a)(3)(ii), all fee calculation worksheets and other emissions-related data used to determine fee payment for 5 years following submittal of fee payment. Emission-related data include, for example, emissions-related forms provided by NNEPA and used by the permittee for fee calculation purposes, emissions-related spreadsheets, and records of emissions monitoring data and related support

information required to be kept in accordance with 40 CFR § 71.6(a)(3)(ii) [40 CFR § 71.6(a)(7) and § 71.9(i)].

6. Failure of the permittee to pay fees in a timely manner shall subject the permittee to assessment of penalties and interest in accordance with NNEPA Subpart VI § 603(C).
7. When notified by NNEPA of underpayment of fees, the Permittee shall remit full payment within 30 days of receipt of notification [40 CFR § 71.9(j)(2)].
8. A Permittee who thinks an NNEPA assessed fee is in error and wishes to challenge such fee, shall provide a written explanation of the alleged error to NNEPA along with full payment of the NNEPA assessed fee [CFR § 71.9(j)(3)].

IV.B. Blanket Compliance Statement [40 CFR §§ 71.6(a)(6)(i) and (ii), and Sections 113(a) and 113(e)(1) of the Clean Air Act, and 40 CFR § 51.212, § 52.12, § 52.33, § 60.11(g), and § 61.12]

1. The permittee must comply with all conditions of this Part 71 permit. Any permit noncompliance, including, but not limited to, violation of any applicable requirement; any permit term or condition; any fee or filing requirement; any duty to allow or carry out inspection, entry, or monitoring activities; or any regulation or order issued by the permitting authority pursuant to this part constitutes a violation of the Clean Air Act and is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit [40 CFR §§ 71.6(a)(6)(i) and (ii)].
2. Determinations of deviations, continuous or intermittent compliance status, or violations of this permit, are not limited to the applicable testing or monitoring methods required by the underlying regulations or this permit; other credible evidence (including any evidence admissible under the Federal Rules of Evidence) must be considered in such determinations. [Section 113(a) and 113(e)(1) of the Clean Air Act, 40 CFR § 51.212, § 52.12, § 52.33, § 60.11(g), and § 61.12]

IV.C. Compliance Certifications [40 CFR § 71.6(c)(5)]

1. The permittee shall submit to NNEPA and US EPA Region 9 a certification of compliance with permit terms and conditions, including emission limitations, standards, or work practices, postmarked by January 30 of each year and covering the previous calendar year. The compliance certification shall be certified as to truth, accuracy, and completeness by the permit-designated responsible official consistent with Section III.C.4 of this permit [40 CFR § 71.6(c)(5)].
2. The certification shall include the following:

- a. Identification of each permit term or condition that is the basis of the certification.
- b. Identification of the method(s) or other means used for determining the compliance status of each term and condition during the certification period, and whether such methods or other means provide continuous or intermittent data.

If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with Section 113(c)(2) of the Clean Air Act, which prohibits knowingly making a false certification or omitting material information.

- c. The compliance status of each term and condition of the permit for the period covered by the certification based on the method or means designated above. The certification shall identify each deviation and take it into account in the compliance certification.
- d. Whether compliance with each permit term was continuous or intermittent.

IV.D. Duty to Provide and Supplement Information [40 CFR § 71.6(a)(6)(v), 40 CFR § 71.5(b)]

The permittee shall furnish to NNEPA and US EPA Region 9, within a reasonable time, any information that NNEPA and US EPA Region 9 may request in writing to determine whether cause exists for modifying, revoking, and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the permittee shall also furnish to NNEPA and US EPA Region 9 copies of records that are required to be kept pursuant to the terms of the permit, including information claimed to be confidential. Information claimed to be confidential should be accompanied by a claim of confidentiality according to the provisions of 40 CFR § 2, Subpart B. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information. The permittee shall also provide additional information as necessary to address any requirements that become applicable to the facility after this permit is issued.

IV.E. Submissions [40 CFR § 71.5(d), § 71.6, and § 71.9]

Any document required to be submitted with this permit shall be certified by a responsible official as to truth, accuracy, and completeness. Such certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. All documents required to be submitted, including reports, test data, monitoring data, notifications, compliance certifications, fee calculation worksheets, and applications for renewals and permit modifications shall be submitted to NNEPA and US EPA Region 9:

Navajo Nation Air Quality Control Program
Operating Permit Program
P.O. Box 529
Fort Defiance, AZ 86504

and
Director, Air Division (Attn: AIR-1)
EPA Region IX
75 Hawthorne Street
San Francisco, CA 94105

IV.F. Severability Clause [40 CFR § 71.6(a)(5)]

The provisions of this permit are severable, and in the event of any challenge to any portion of this permit, or if any portion is held invalid, the remaining permit conditions shall remain valid and in force.

IV.G. Permit Actions [40 CFR § 71.6(a)(6)(iii)]

This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

IV.H Administrative Permit Amendments [40 CFR § 71.7(d)] [NNOPR § 405(C)]

The permittee may implement the changes outlined in subparagraphs (1) through (5) below immediately upon submittal of the request for the administrative revision. The permittee may request the use of administrative permit amendment procedures for a permit revision that:

1. Corrects typographical errors.
2. Identifies a change in the name, address, or phone number of any person identified in the permit, or provides a similar minor administrative change at the source.
3. Requires more frequent monitoring or reporting by the permittee.
4. Allows for a change in ownership or operational control of a source where the NNEPA determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the NNEPA;
5. Incorporates into the Part 71 permit the requirements from preconstruction review permits authorized under an EPA-approved program, provided that such a program meets procedural requirements substantially equivalent to the requirements of 40 CFR § 71.7 and § 71.8 that would be applicable to the change if it were subject to review as a permit modification, and compliance requirements substantially equivalent to those contained in 40 CFR § 71.6.
6. Incorporates any other type of change which NNEPA has determined to be similar to those listed above in subparagraphs (1) through (5).

IV.I. Minor Permit Modifications [40 CFR § 71.7(e)(1)] [NNOPR § 405(D)]

1. The permittee may request the use of minor permit modification procedures only for those modifications that:
 - a. Do not violate any applicable requirement.
 - b. Do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit.
 - c. Do not require or change a case-by-case determination of an emissions limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis.
 - d. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:
 - i. A federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I; and
 - ii. An alternative emissions limit approved pursuant to regulations promulgated under Section 112(i)(5) of the Clean Air Act.
 - e. Are not modifications under any provision of Title I of the Clean Air Act.
 - f. Are not required to be processed as a significant modification.
2. Notwithstanding the list of changes eligible for minor permit modification procedures in paragraph (1) above, minor permit modification procedures may be used for permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, to the extent that such minor permit modification procedures are explicitly provided for in an applicable implementation plan or in applicable requirements promulgated by EPA.
3. An application requesting the use of minor permit modification procedures shall meet the requirements of 40 CFR § 71.5(c) and shall include the following:
 - (i) A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
 - (ii) The source's suggested draft permit;
 - (iii) Certification by a responsible official, consistent with 40 CFR § 71.5(d), that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and
 - (iv) Completed forms for the permitting authority to use to notify affected States as required under 40 CFR § 71.8.

- (v) If the requested permit revision would affect existing compliance plans or schedules, related progress reports, or certification of compliance requirements, and an outline of such effects.
- 4. The permittee may make the change proposed in its minor permit modification application immediately after submittal of such application. After the permittee makes the change allowed by the preceding sentence, and until the Director takes any of the actions specified in NNOPR § 405(D)(6) (a) through (c), the permittee must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time period, the permittee need not comply with the existing permit terms and conditions it seeks to modify. However, if the permittee fails to comply with its proposed permit terms and conditions during this period, the existing permit terms and conditions it seeks to modify may be enforced against it.
- 5. The permit shield under 40 CFR § 71.6(f) may not extend to minor permit modifications [See 40 CFR § 71.7(e)(1)(vi)].

IV.J. Group Processing of Minor Permit Modifications [40 CFR § 71.7(e)(2)]

- 1. Group processing of modifications by EPA may be used only for those permit modifications:
 - a. That meet the criteria for minor permit modification procedures under paragraphs IV.I.1 of this permit; and
 - b. That collectively are below the threshold level of 10 percent of the emissions allowed by the permit for the emissions unit for which the change is requested, 20 percent of the applicable definition of major source in 40 CFR § 71.2, or 5 tons per year, whichever is least.
- 2. An application requesting the use of group processing procedures shall be submitted to EPA, shall meet the requirements of 40 CFR § 71.5(c), and shall include the following:
 - a. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs.
 - b. The source's suggested draft permit.
 - c. Certification by a responsible official, consistent with 40 CFR § 71.5(d), that the proposed modification meets the criteria for use of group processing procedures and a request that such procedures be used.
 - d. A list of the source's other pending applications awaiting group processing, and a determination of whether the requested modification, aggregated with these other applications, equals or exceeds the threshold set under Condition IV.(J)(1)(b) above.

- e. Completed forms for the permitting authority to use to notify affected States as required under 40 CFR § 71.8.
3. The source may make the change proposed in its minor permit modification application immediately after it files such application. After the source makes the change allowed by the preceding sentence, and until the permitting authority takes any of the actions authorized by 40 CFR § 71.7(e)(1)(iv)(A) through (C), the source must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time period, the source need not comply with the existing permit terms and conditions it seeks to modify. However, if the source fails to comply with its proposed permit terms and conditions during this time period, the existing permit terms and conditions it seeks to modify may be enforced against it.
4. The permit shield under 40 CFR § 71.6(f) may not extend to group processing of minor permit modifications [See 40 CFR § 71.7(e)(1)(vi)].

IV.K. Significant Permit Modifications [40 CFR § 71.7(e)(3)] [NNOPR § 405(E)]

1. The permittee must request the use of significant permit modification procedures for those modifications that:
 - a. Do not qualify as minor permit modifications or as administrative amendments.
 - b. Are significant changes in existing monitoring permit terms or conditions.
 - c. Are relaxations of reporting or recordkeeping permit terms or conditions.
2. Nothing herein shall be construed to preclude the permittee from making changes consistent with Part 71 that would render existing permit compliance terms and conditions irrelevant.
3. The permittee must meet all requirements of Part 71 for applications for significant permit modifications. For the application to be determined complete, the permittee must supply all information that is required by 40 CFR § 71.5(c) for permit issuance and renewal, but only that information that is related to the proposed change [See 40 CFR §§ 71.7(e)(3)(ii) and 40 CFR § 71.5(a)(2)].

IV.L. Reopening for Cause [40 CFR § 71.7(f)]

NNEPA shall reopen and revise the permit prior to expiration under any of the following circumstances:

1. Additional applicable requirements under the Act become applicable to a major Part 71 source with a remaining permit term of 3 or more years.
2. Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

3. NNEPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
4. NNEPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

IV.M. Property Rights [40 CFR § 71.6(a)(6)(iv)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

IV.N. Inspection and Entry [40 CFR § 71.6(c)(2)]

Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized representatives from NNEPA and US EPA to perform the following:

1. Enter upon the permittee's premises where a Part 71 source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
4. As authorized by the Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

IV.O. Emergency Provisions [40 CFR § 71.6(g)]

1. In addition to any emergency or upset provision contained in any applicable requirement, the permittee may seek to establish that noncompliance with a technology-based emission limitation under this permit was due to an emergency. To do so, the permittee shall demonstrate the affirmative defense of emergency through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. an emergency occurred and that the permittee can identify the cause(s) of the emergency;
 - b. the permitted facility was at the time being properly operated;
 - c. during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards, or other requirements in this permit; and
 - d. the permittee submitted notice of the emergency to EPA within 2 working

days of the time when emissions limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. This notice fulfills the requirements of Condition III.C(2) of this permit.

- e. In any enforcement preceding the permittee attempting to establish the occurrence of an emergency has the burden of proof.
2. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emissions limitation under the permit due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.

IV.P. Transfer of Ownership or Operation [40 CFR § 71.7(d)(1)(iv)]

A change in ownership or operational control of this facility may be treated as an administrative permit amendment if the NNEPA determines no other change in this permit is necessary and provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to NNEPA.

IV.Q. Off Permit Changes [40 CFR § 71.6(a)(12)] [NNOPR § 404(B)]

The permittee is allowed to make certain changes without a permit revision, provided that the following requirements are met:

1. Each change is not addressed or prohibited by this permit;
2. Each change must comply with all applicable requirements and may not violate any existing permit term or condition;
3. Changes under this provision may not include changes or activities subject to any requirement under Title IV or that are modifications under any provision of Title I of the Clean Air Act;
4. The permittee must provide contemporaneous written notice to NNEPA and US EPA Region 9 of each change, except for changes that qualify as insignificant activities under 40 CFR § 71.5(c)(11). The written notice must describe each change, the date of the change, any change in emissions, pollutants emitted and any applicable requirements that would apply as a result of the change;
5. The permit shield does not apply to changes made under this provision; and
6. The permittee must keep a record describing all changes that result in emissions of any regulated air pollutant subject to any applicable requirement not otherwise regulated under this permit, and the emissions resulting from those changes.

IV.R. Permit Expiration and Renewal [40 CFR Sections 71.5(a)(1)(iii), 71.6(a)(11), 71.7(b), 71.7(c)(1)(i) and (ii), and 71.8(d)]

1. This permit shall expire upon the earlier occurrence of the following events:
 - a. up to twelve (12) years elapses from the date of issuance to a solid waste incineration unit combusting municipal waste subject to standards under section 129 of the Clean Air Act; or
 - b. for sources other than those identified in subparagraph IV.R(1)(a) above, five (5) years elapses from the date of issuance; or
 - c. the source is issued a Part 70 permit by NNEPA, provided that EPA has granted the Navajo Nation treatment as a state and primacy for a Part 70 program and that NNEPA issues the permit consistent with the VCA.
2. Expiration of this permit terminates the permittee's right to operate unless a timely and complete permit renewal application has been submitted on or before a date 6 months, but not more than 18 months, prior to the date of expiration of this permit.
3. If the permittee submits a timely and complete permit application for renewal is consistent with 40 CFR § 71.5(a)(2), but the permitting authority has failed to issue or deny the renewal permit, then the permit shall not expire until the renewal permit has been issued or denied and any permit shield granted pursuant to 40 CFR § 71.6(f) may extend beyond the original permit term until renewal.
4. The permittee's failure to have a Part 71 permit is not a violation of this part until NNEPA takes final action on the permit renewal application. This protection shall cease to apply if, subsequent to the completeness determination, the permittee fails to submit any additional information identified as being needed to process the application by the deadline specified in writing by NNEPA.
5. Renewal of this permit is subject to the same procedural requirements that apply to initial permit issuance, including those for public participation, affected State, and tribal review.
6. The application for renewal shall include the current permit number, description of permit revisions and off-permit changes that occurred during the permit term, any applicable requirements that were promulgated and not incorporated into the permit during the permit term, and other information required by the application form.

IV.S. Additional Permit Conditions [Voluntary Compliance Agreement, Article 6]

This permit is issued pursuant to the Voluntary Compliance Agreement between the permittee and the Navajo Nation. The permittee shall comply with the terms of this permit and shall be subject to enforcement of the permit by the Navajo Nation EPA, pursuant to the terms of the Voluntary Compliance Agreement. The permittee's agreement to comply is effective upon the permittee's written acceptance of the permit and expires at the end of the permit term, unless the permit is renewed. The permittee's

agreement to comply may be withdrawn during the permit term only if the Voluntary Compliance Agreement is terminated or expires as provided in that Agreement.

IV.T. Part 71 Permit Enforcement [Voluntary Compliance Agreement, Section 5.4.5; 40 CFR § 71.12]

1. The Navajo Nation has the authority to:
 - a. Develop compliance plans and schedules of compliance;
 - b. Conduct compliance and monitoring activities, including review of monitoring reports and compliance certifications, inspections, audits, conducting and/or reviewing stack tests, and issuing requests for information either before or after a violation is identified; and
 - c. Conduct enforcement-related activities, including issuance of notices, findings, and letters of violation, and development of cases up to, but not including, the filing of a complaint or order.
2. Violations of any applicable requirement; any permit term or condition; any fee or filing requirement; any duty to allow or carry out inspection, entry, or monitoring activities; or any regulation or order issued by the permitting authority pursuant to this part are violations of the Act and are subject to full Federal enforcement authorities available under the Act.



**NAVAJO NATION ENVIRONMENTAL PROTECTION
AGENCY**

**Navajo Nation Operating Permit Program
Rt. 112 North, Building F004-051
P.O. Box 529, Fort Defiance, AZ 86504**



Detailed Information

Permitting Authority: NNEPA

County: Coconino

State: Arizona

AFS Plant ID: 04-005-N0423

Facility: Navajo Generating Station

Document Type: STATEMENT OF BASIS

PART 71 FEDERAL OPERATING PERMIT

STATEMENT OF BASIS

Navajo Generating Station

Permit No. NN-ROP-05-06

1. Facility Information

a. Permittee

Navajo Generating Station
5 Miles East of Page, off U.S. Highway 98
Page, Arizona 86040

Mailing Address:

P.O. Box 850
Page, Arizona 86040

Managing Participant Name: Salt River Project Agricultural Improvement
and Power District (SRP)*

Managing Participant Mailing Address: P.O. Box 52025, PAB 352
Phoenix, Arizona 85072-2025

*Note: This facility is co-owned by 6 entities. SRP is listed as the managing participant in this permit since they act as the facility operator, and have accepted the responsibility to obtain environmental permits for Navajo Generating Station, including an Acid Rain permit and Part 71 Permit. In addition to SRP, the other 5 co-owners of this facility are:

1. Los Angeles Department of Water and Power (LADWP)
2. Arizona Public Service Company (APS)
3. Tucson Electric Power (TEP)
4. Nevada Power Company (NPC)
5. U.S. Bureau of Reclamation (USBR)

b. Contact Information

Facility Contact:	Paul Ostapuk O&M Manager	Phone: (928) 645-6577 Facsimile: (928) 645-7298
Responsible Official:	Robert K. Talbot Plant Manager	Phone: (928) 645-6217 Facsimile: (928) 645-7298

c. Description of Operations, Products

The facility is a 2,250 net Megawatts coal fired power plant.

d. History

The facility consists of three (3) coal fired utility boilers. The permittee receives the coal from a nearby coal mine which has an average sulfur content between 0.5% and 0.75% by weight. Boilers U1, U2, and U3 commenced construction in 1970. The construction of these boilers predated EPA's preconstruction permit regulation, and there have been no major modifications to this facility since the regulations were adopted. Therefore, this facility has not been required to obtain a preconstruction permit.

Particulate emissions from boilers U1 through U3 are controlled by Electrostatic Precipitators (ESP). The Flue Gas Desulfurization (FGD) systems for SO₂ control were installed in 1997, 1998, and 1999 for boilers U3, U2, and U1, respectively. The associated limestone handling system was constructed in 1997. A Part 71 Operating Permit NN-OP-00-01 was issued to this source on June 5, 2001.

Although the Arizona Department of Environmental Quality lacks authority to administer Clean Air Act programs in the Navajo Nation, this source has been voluntarily in compliance with the Arizona SIP requirements. EPA proposed a Federal Implementation Plan (FIP) for this plant in September 8, 1999, which was revised and re-proposed on September 11, 2006. This FIP has not yet been finalized. This Part 71 permit renewal will be reopened to include the final version of the FIP when it is promulgated.

e. Existing Approvals

The source has been operating under Part 71 Operating Permit NN-OP-00-01, issued on June 5, 2001 and the following approvals:

- (a) First Reopening, issued on November 13, 2003.
- (b) First Administrative Amendment, issued on April 28, 2003.

- (c) Second Administrative Amendment, issued on December 18, 2003.
- (d) First Minor Modification #NN-OP-00-01-D, issued on October 20, 2005.

All conditions from previous approvals were incorporated into this Part 71 permit renewal, except for the following:

In the First Minor Modification #NN-OP-00-01-D, issued on October 20, 2005, the permittee was permitted to construct and operate a new ash storage facility, consisting of one (1) ash storage building (controlled by baghouses DC-103 and DC-105) and two (2) truck loadout stations (controlled by baghouse DC-131). However, in an e-mail received from the source on January 30, 2007, the permittee stated that they do not have any definite plans in the near future to construct these units. Therefore, the description for the new ash storage facility and the associated applicable requirements in #NN-OP-00-01-D, issued on October 20, 2005, are not included in this Part 71 permit renewal.

f. Permitted Emission Units and Control Equipment

Unit ID/ Stack ID	Unit Description	Maximum Capacity	Commenced Construction Date	Control Method
U1/ Stack S1	One (1) pulverized coal-fired boiler, using No. 2 fuel oil for ignition fuel. Stack S1 is equipped with SO ₂ and NO _x CEMS, and a COMS.	7,725 MBtu/hr; 750 Net MW	1970	COFA*; FGD system SCBR1 (1999); ESP1
U2/ Stack S2	One (1) pulverized coal-fired boiler, using No. 2 fuel oil for ignition fuel. Stack S2 is equipped with SO ₂ and NO _x CEMS, and a COMS.	7,725 MBtu/hr; 750 Net MW	1970	COFA*; FGD system SCBR2 (1998); ESP2
U3/ Stack S3	One (1) pulverized coal-fired boiler, using No. 2 fuel oil for ignition fuel. Stack S3 is equipped with SO ₂ and NO _x CEMS, and a COMS.	7,725 MBtu/hr; 750 Net MW	1970	COFA*; FGD system SCBR3 (1997); ESP3
AUX A	One (1) auxiliary boiler; using No. 2 fuel oil as fuel	308 MMBtu/hr	1970	N/A
AUX B	One (1) auxiliary boiler; using No. 2 fuel oil as fuel	308 MMBtu/hr	1970	N/A
Coal Handling Operations				
CT1	One (1) railcar unloading operation	10,000 tons/hr	1970	N/A
L1 - L12	Twelve (12) hopper feeders	2,400 tons/hr (total)	1970	N/A
BC-1 through BC- 4	Four (4) conveyors to the yard surge bin	1,800 tons/hr (each)	1970	DC-8
BC-4A	One (1) conveyor to the batch weight system	100 tons/hr	1970	DC-8
BFD-5A, BC-5	Two (2) reclaim conveyors	1,800 tons/hr (each)	1970	DC-8
BC-6	One (1) conveyor to the yard surge bin	1,500 tons/hr	1970	DC-8

Unit ID/ Stack ID	Unit Description	Maximum Capacity	Commenced Construction Date	Control Method
BC-6A through BC- 6C	Three (3) conveyors to the stacker/reclaimer	1,800 tons/hr (each)	1970	N/A
BC-7	One (1) conveyor to the emergency reclaim hopper	1,500 tons/hr	1970	N/A
YSB-1	One (1) yard surge bin	1,800 tons/hr	1970	DC-8
BC-8A BC- 8B	Two (2) conveyors to plant surge bin	1,500 tons/hr (each)	1970	DC-8
PSB-1	One (1) plant surge bin	3,000 tons/hr	1970	DC-5
BC-9A BC- 9B	Two (2) conveyors to the coal silos for boilers U1 and U2	1,500 tons/hr (each)	1970	DC-5
BC-10A BC-10B	Two (2) conveyors to the coal silos for boiler U3	1,500 tons/hr (each)	1970	DC-5
CC-1A through CC- 9A; CC-1B through CC- 9B	Three (3) enclosed cascading conveying systems to the coal storage silos for boilers U1, U2, and U3	1,500 tons/hr (each)	1970	DC-1 through DC-4, DC-6, and DC-7
Silos 1A through 1G	Seven (7) storage silos for boiler U1	3,000 tons/hr (each)	1970	DC-1, DC-2, and baghouse PR-1.
Silos 2A through 2G	Seven (7) storage silos for boiler U2	3,000 tons/hr (each)	1970	DC-3, DC-4, and baghouse PR-2.
Silos 3A through 3G	Seven (7) storage silos for boiler U3	3,000 tons/hr (each)	1970	DC-6, DC-7, and baghouse PR-3.
CS	Outdoor coal storage piles	3,300 tons/hr (total)	1970	water suppression
Limestone handling system associated with the FGD systems				
Unloading Bay A and B	Two (2) truck unloading operations	38 tons/hr (each)	1997	N/A
O-LSH- HOP-A	One (1) limestone unloading hopper	300 tons/hr	1997	DC-9
O-LSH- HOP-B	One (1) limestone unloading hopper	300 tons/hr	1997	DC-10
O-LSH- FDR-A	One (1) conveyor	300 tons/hr	1997	DC-9
O-LSH- FDR-B	One (1) conveyor	300 tons/hr	1997	DC-10
O-LSH- CNV-A	One (1) conveyor	300 tons/hr	1997	DC-9
O-LSH- CNV-B	One (1) conveyor	300 tons/hr	1997	DC-10
O-LSH- SILO-A and B	Two (2) limestone storage silos	300 tons/hr (each)	1997	DC-11
O-LSP- FDR-A and B	Two (2) enclosed feeders to the slurry preparation system	36 tons/hr (each)	1997	N/A

Unit ID/ Stack ID	Unit Description	Maximum Capacity	Commenced Construction Date	Control Method
O-LSP- CNV-A and B	Two (2) enclosed cleanout conveyors	5 tons/hr (each)	1997	N/A
O-LSP- MILL-A and B	Two (2) ball mills	36 tons/hr (each)	1997	N/A
LS	Limestone storage piles	600 tons/hr (total)	1997	water suppression
Fly ash handling system				
Silo 1	One (1) fly ash bin for boilers U1 and U2	46 tons/hr	1970	DC-TD and DC-S1/2
Silo 2	One (1) fly ash bin for boiler U3	46 tons/hr	1970	DC-S3
Silo 1 and 2 Loading	Two (2) partially enclosed fly ash truck loading operations	38 tons/hr (each)	1970	N/A
DWB-A through DWB-F	Six (6) bottom ash truck loading operations. The bottom ash is processed in a wet form	46 tons/hr (each)	1970	N/A
Soda ash/lime handling systems				
SAB-1A, SAB-2A, SAB-1B, SAB-2B	Four (4) soda ash storage bins	0.4 tons/hr (each)	1970	dust collector BH-6
LB-1 and LB-2	Two (2) lime storage bins	0.57 tons/hr (each)	1970	dust collector BH-7
Miscellaneous Operations				
	Six (6) cooling towers	813,000 gal/min (total)	1970	N/A
TR	Fugitive emissions from unpaved roads	N/A	1970	water suppression

*Note: COFA = Close-Coupled Overfire Air.

g. Unpermitted Emission Units and Control Equipment

No unpermitted emission units were found to be operating at this source during this review process.

h. New Emission Units and Control Equipment

There are no new emission units or pollution control equipment included in this Part 71 operating permit renewal.

i. Insignificant Activities

This stationary source also includes the following insignificant activities as defined in 40 CFR 71.5(c)(11)(ii), which is defined as emission units with potential to emit of each criteria pollutant less than 2 tons per year and potential to emit a single HAP less than 0.5 per year or the de minimis level established under CAA 112(g), whichever is less:

- (a) Diesel fired emergency generators, including the following:
 - (1) One (1) emergency generator for boilers U1 and U2, identified as EG1, with a maximum heat input capacity of 5.49 MMBtu/hr.
 - (2) One (1) emergency generator for boiler U3, identified as EG2, with a maximum heat input capacity of 3.43 MMBtu/hr.
 - (3) One (1) warehouse emergency generator, with a maximum heat input capacity of 50 kilowatts (0.6 MMBtu/hr).
- (b) Facility wide welding activities, identified as WL.
- (c) Abrasive blasting operations.
- (d) Fuel and oil storage tanks as described in Table 1.

Table 1 - Fuel and Oil Storage Tanks

Unit ID	Type of Liquid Stored	Construction Date	Max. Capacity (gallons)
NGS-062-A	Diesel	1991	14,000
NGS-063-A	Diesel	1991	14,000
NGS-064-A	Gas	1991	12,000
NGS-065-A	Waste Oil	1991	2,500
NGS-066-A	Waste Antifreeze	1991	1,000
NGS-067-A	Waste Oil	1991	550
NGS-068-A	30 Wt Engine Oil	1991	550
NGS-069-A	Antifreeze	1991	550
NGS-070-A	30 Wt Engine Oil	1991	550
NGS-071-A	10 Wt Engine Oil	1991	550
NGS-072-A	Diesel	1991	2,000
NGS-073-A	Diesel	1991	10,000
NGS-074-A	Diesel	1991	10,000
NGS-075-A	Diesel	1974	5,040,000
NGS-075-B	Diesel	2000	172,000
NGS-076-A	Clean Lube Oil	1973	16,000
NGS-077-A	Dirty Lube Oil	1973	16,000
NGS-078-A	10 Wt Engine Oil	1991	550
NGS-079-A	Mobile Diesel	Early '70s	200
NGS-080-A	Mobile Diesel	Early '70s	200
NGS-081-A	Mobile Diesel	Early '70s	200
NGS-082-A	30 Wt Engine Oil	1991	550
NGS-083-A	10 Wt Engine Oil	1991	550

Unit ID	Type of Liquid Stored	Construction Date	Max. Capacity (gallons)
NGS-084-A	Mobile Diesel	Early '70s	200
NGS-085A	Mobile Diesel	1974	400
NGS-086A	Mobile Diesel	1974	350
NGS-088A	Mobile Diesel	1974	400
NGS-090A	Turbine Lube Oil	1974	7,450
NGS-091A	Turbine Lube Oil	1974	650
NGS-092A	Turbine Lube Oil	1974	650
NGS-093A	Turbine Lube Oil	1974	7,450
NGS-094A	Turbine Lube Oil	1974	650
NGS-095A	Turbine Lube Oil	1974	650
NGS-096A	Turbine Lube Oil	1974	7,450
NGS-097A	Turbine Lube Oil	1974	650
NGS-098A	Turbine Lube Oil	1974	650
NGS-099A	H2 Seal Oil	1974	650
NGS-100A	H2 Seal Oil	1974	650
NGS-101A	H2 Seal Oil	1974	650
NGS-102A	Transformer Oil	1974	5,600
NGS-103A	Transformer Oil	1974	5,750
NGS-104A	Transformer Oil	1974	5,750
NGS-105A	Diesel	1974	8,000
NGS-106A	Diesel	1974	10,000
NGS-107A	Lube Oil	1974	750
NGS-108A	Diesel	1974	900
NGS-109A	Diesel	1974	400

- (e) Landscaping, building maintenance, or janitorial activities.
- (f) Hand-held or manually operated equipment used for buffing, polishing, carving, cutting, drilling, machining, routing, sanding, sawing, surface grinding, or tuning of precision parts, metals, plastics, masonry, glass, or wood.
- (g) Powder coating operations.
- (h) Lab equipment used exclusively for chemical and physical analyses.
- (i) Maintenance painting and surface coating.
- (j) Parts cleaning.
- (k) Maintenance sand blasting.

- (1) Other insignificant activities as described in Table 2.

Table 2 - Other Insignificant Activities

Unit Description	Max. Capacity (gallons)	Number of Units
Main turbine lube oil reservoir	7,450	3
M T lube oil filter canisters	100	6
Seal oil tank	650	3
Aux turbine lube oil reservoir	650	2
Electro hydraulic control reservoir	400	3
Pulverizer lube oil reservoir	100	7
Pulverizer lube oil reservoir	300	14
Condensate pump reservoir	85	9
Boiler Feed BP oil reservoir	22	9
Inst / service air compressor	50	9
Soot blowing air compressor	250	3
Emergency diesel generator	50	1
Emergency diesel generator	100	1
Primary air fan	85	6
Induced draft fan	110	12
Forced draft fan	10	6
Coal belt gear case	35	35
Cooling tower circ pump	10	6
Cooling fan gear case	34	30
Brine concentrator compressor	100	1
Brine concentrator compressor	150	2
Chrystallizer compressor	275	1
Transformer (spare) (mineral oil)	265	2
Emergency diesel fire pump	250	1
Transformer (main)	9,550	12
Transformer (aux)	6,672	3
Transformer (main station service)	21,980	1
Transformer (main station service)	17,730	1
Reactor tank	5,500	12
Reactor tank	6,142	12
Thyrite varister oil tank	2,446	12
Large capacitor oil tanks	3.2	5,581
Small capacitor oil tanks	2.8	2,210
Transformer (50 KV at RR)	4,180	3
Circuit breaker oil tank (230 KV)	2,575	5
Transformer 4,160 V	1,409	14

Unit Description	Max. Capacity (gallons)	Number of Units
Transformer 4,160 V	1,193	2
Transformer 480 V	268	28
Transformer 480 V	338	30
Transformer 480 V	343	5
Transformer/rectifier set	165	80
Transformer/rectifier set	140	32
Transformer/rectifier set	132	64
Transformer/rectifier set	117	64
Transformer 4,160 V (lake pump)	1,259	3
Transformer 480 V (lake pump)	160	2
Waste oil storage tank (cent yard)	500	1
Generator, diesel (Generac)	265	1
Recycle slurry system gear box	16	12
Recycle slurry system gear box	22	12
Oxidation air system oil res.	60	9
Recycle valve Hydraulic sys.	120	3
Reactivator agitator	13	30
Limestone feed tank agitator	24	3
Absorber sump agitator	0.75	6
Ball mill gear box	52	2
Ball mill lube reservoir tank	110	2
Limestone conveyor gear box	39	3
Limestone transfer tank agitator	44	1
Filtrate raw water tank gear box	44	1
Ball mill sump tank agitator	7	2
LSP sump agitator	0.75	3
Filtrate transfer tank agitator	24	1
Secondary vacuum pump gear box	4.5	3
Absorber holding tank agitator	23	10
Bi-product sump agitator	1.5	2
Primary dewatering agitator	2	6
Conveyer feedbelt gear box	1.5	2
Sulfuric acid tank	20,000	1
Sulfuric acid tank	15,000	3
Sulfuric acid tank	10,000	1
Sodium hydroxide (25%) tank	10,000	1
Sodium hydroxide (50%) tank	10,000	1
Ammonia tank	10,000	1
Ferric chloride tank	16,000	1
Acid or caustic tank	24,000	2

Unit Description	Max. Capacity (gallons)	Number of Units
Sodium hypochlorite tank	4,500	3
Scale inhibitor tank	2,000	6
Dust Suppressant (Dusbloc) Tank	1,000	1
Dust Suppressant (Dusbloc) Tank	4,000	1

j. Enforcement Issue

There are no enforcement actions pending.

k. Emission Calculations

See Appendix A of this document for detailed calculations (pages 1 through 16).

l. Potential to Emit

Potential to emit (PTE) means the maximum capacity to emit any air pollutant (Clean Air Act criteria pollutants or hazardous air pollutants) under its physical and operational design. Any physical or operational limitations on the maximum capacity of this plant to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, may be treated as a part of its design if the limitation is enforceable by US EPA or NNEPA. Actual emissions are typically lower than PTE.

Process/facility	Potential to Emit (tons/year)						
	PM	PM-10	SO ₂	NO _x	VOC	CO	HAPs
Boiler B1	2,030	519	3,384	15,226	94.2	785	125
Boiler B2	2,030	519	3,384	15,226	94.2	785	125
Boiler B3	2,030	519	3,384	15,226	94.2	785	125
Auxiliary Boilers	60.7	60.7	1,444	442	3.68	92.0	11.1
Coal Handling	10.7	6.44	-	-	-	-	-
Coal Piles (Fugitive)	5.43	2.57	-	-	-	-	-
Limestone Handling	4.61	2.98	-	-	-	-	-
Limestone Piles (Fugitive)	4.60	2.17	-	-	-	-	-
Fly Ash Handling	29.2	29.2	-	-	-	-	0.01
Soda Ash/Lime Handling	0.26	0.26	-	-	-	-	-
Cooling Towers	19.2	19.2	-	-	-	-	-
Unpaved Roads (Fugitive)	591	153	-	-	-	-	-
Emergency Generators	0.74	0.74	0.69	10.5	0.83	2.26	Negligible
Other Insignificant Activities*	Less than 5.00	Less than 5.00	-	Less than 5.00	-	-	Negligible
PTE of the Entire Source	6,822	1,838	11,595	46,130	292	2,448	387
Title V Major Source Thresholds	NA	100	100	100	100	100	10 for a single HAP and 25 for total HAPs

*Note: This is an estimate on the PM/PM10 emissions from the welding and blasting operations, and VOC/HAP emissions from the parts cleaning, surface coating operations, and the storage tanks.

- (a) The potential to emit of PM10, SO₂, VOC, CO and NO_x are equal to or greater than 100 tons per year. In addition, the potential to emit of HAPs from this source is greater than 10 tons per year for a single HAP and greater than 25 tons per year for total HAPs. Therefore, this source is considered a major source under 40 CFR 71 (Federal Operating Permit Program).
- (b) This source is located in an attainment area and is in one of the 28 source categories defined in 40 CFR 52.21(b)(1)(iii). The potential to emit PM and all criteria pollutants of this source are greater than 100 tons per year. Therefore, this source is an existing major source under the Prevention of Significant Deterioration (PSD) program.

m. Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2006 emission inventory data submitted by the permittee.

Pollutant	Actual Emissions (tons/year)
PM	1,943
PM10	513
SO ₂	3,844
VOC	22
NO _x	34,430
Sulfuric Acid Mist	61
Hydrogen Chloride	21
Hydrogen Fluoride	32

2. Tribe Information

a. General

The reservation of the Navajo Nation is one of the largest Indian reservations in the country, covering more than 26,000 square miles in three states: Arizona, Utah, and New Mexico. The Navajo Nation currently is home to more than 260,000 people. Industries on the reservation include oil and natural gas production, coal and uranium mining, electric generation and distribution, and tourism.

b. Local air quality and attainment status

All areas of the Navajo Nation are currently designated as attainment or unclassifiable for all pollutants for which a National Ambient Air Quality Standard (NAAQS) has been established.

3. Prevention of Significant Deterioration (PSD) Applicability

This source commenced construction in 1970 and commenced modifications in 1997 (installation of the FGD systems). The construction of this source predated the PSD applicability date of June 1, 1975 for fossil fuel steam electric plants. Therefore, this source was not required to obtain a preconstruction permit. This existing source is in one of the 28 source categories defined in 40 CFR 52.21(b)(1)(iii) and has potential to emit PM and all criteria pollutants greater than 100 tons per year. Therefore, this source is an existing PSD major source.

4. Federal Rule Applicability

- (a) This source will be subject to the Source-Specific Federal Implementation Plan (FIP) for Navajo Generating Station, Navajo Nation (40 CFR 49.20) once it is promulgated. This rule was proposed on September 11, 2006 and the public notice

period closed on November 6, 2006. However, this rule has not been promulgated during the review of this Part 71 permit renewal. NNEPA will reopen the Part 71 permit renewal for the permittee to incorporate the requirements of this FIP once this rule is promulgated.

- (b) The existing boilers U1 through U3 are considered utility units under the definition of 40 CFR 72.2. Therefore, these boilers are subject to the Acid Rain Program requirements (40 CFR 72 through 40 CFR 76), pursuant to 40 CFR 72.6(a)(3). An Acid Rain Renewal Application was submitted on January 3, 2007. Pursuant to 40 CFR 72.9, the permittee shall comply with the following:

- (1) The SO₂ and NO_x continuous emission monitoring requirements in 40 CFR 75.
- (2) Pursuant to 40 CFR 73.10(b) and the allowance allocations provided on October 30, 2000, the phase II SO₂ allowance allocations for the boilers at this source are listed in the table below:

Emission Unit	SO₂ Allowance for years 2000-2009 (tons/yr)	SO₂ Allowance for years 2010 and beyond (tons/yr)
Boiler U1	26,220	24,949
Boiler U2	24,262	23,354
Boiler U3	25,042	23,693
Facility Total	75,524	71,996

Beginning in 2007, the SO₂ allowance allocations apply to the entire facility, instead of each individual emission unit at this facility.

- (3) Comply with the acid rain emissions limitations for nitrogen oxides in 40 CFR 76 for coal fired boilers. Pursuant to 40 CFR 76.8(d)(2), U. S. EPA has approved a NO_x early election compliance plan for boilers U1, U2, and U3, effective for calendar years 2000 through 2007. Beginning in calendar year 2008, the permittee shall comply with the NO_x emission limit of 0.40 lbs/MMBtu for each of the boilers U1, U2, and U3, pursuant to 40 CFR 76.7(a)(1). The NO_x emission limits for boilers U1 through U3 are summarized below:

Emission Unit	NO_x Emission Limit (At and After 2008)
Boiler U1	0.40 lbs/MMBtu
Boiler U2	0.40 lbs/MMBtu
Boiler U3	0.40 lbs/MMBtu

- (c) The Clean Air Mercury Rule (CAMR, CAA 112(n)) was promulgated on May 31, 2006, which was developed to permanently cap and reduce the mercury (Hg)

emissions from coal fired power plants. Pursuant to 40 CFR 60.24, the Hg emission budget assigned to Navajo Nation is listed in the table below:

Time Period	Total Hg Emission Limit (tons/yr)
Phase I (2010-2017)	0.600
Phase II (2018 -)	0.237

However, on February 8, 2008, the US Court of Appeals for the District of Columbia Circuit issued a decision that vacates the Clean Air Mercury Rule. Therefore, no CAMR requirements are applicable to this source currently.

- (d) Each of the boilers at this source (U1 through U3, AUXA, and AUXB) has a maximum heat input greater than 250 MMBtu/hr. However, these boilers commenced construction before August 17, 1971 and the permittee stated that no modification or reconstruction to the boilers has occurred since the construction of these boilers. Therefore, the New Source Performance Standard (NSPS) for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971 (40 CFR 60.40-46, Subpart D) are not applicable to the boilers at this source.
- (e) The coal handling operations at this source process more than 200 tons of coal per day. However, all the coal handling operations at this source commenced construction before October 24, 1974 and the permittee stated that no modification to the coal handling operations has occurred since the construction of these units. Therefore, the requirements of the New Source Performance Standard for Coal Preparation Plants (40 CFR 60.250-254, Subpart Y) are not applicable.
- (f) Lime is considered a nonmetallic mineral as defined in 40 CFR 60.671. The limestone handling system at this source commenced construction after August 31, 1983 and performs grinding operations. Therefore, the limestone handling system at this source is subject to the requirements of the New Source Performance Standards (NSPS) for Nonmetallic Mineral Processing Plants (40 CFR 60.670-676, Subpart OOO). The affected facilities include each ball mill, screening operation, belt conveyor, storage bin, and enclosed truck loading station associated with the Limestone Handling System.

Pursuant to 40 CFR 60.672, the permittee shall comply with the following emission limitations:

- (1) PM emissions from any stack shall not exceed 0.05 g/dscm (0.022 gr/dscf) and 7% opacity.
- (2) Fugitive emissions shall not exceed 10% opacity, except for crushers at which a capture system is not used.

- (3) Fugitive emissions from crushers at which a capture system is not used shall not exceed 15% opacity.
- (4) Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of 40 CFR 60.672.
- (5) If an affected facility is enclosed in a building, then each enclosed affected facility must comply with the emission limits specified above, or the building enclosing any affected facility shall not emit any visible fugitive emissions except for emissions from a vent which must meet the stack limitations in paragraph (1).
- (6) Stack emissions from any baghouse that controls emissions from only an individual, enclosed storage bin, shall not exceed 7 percent opacity.
- (7) No visible emissions shall be discharged from any affected facility which processes saturated material.

The permittee shall also comply with the testing requirements in 40 CFR 60.675 and the recordkeeping and reporting requirements in 40 CFR 60.676.

- (g) Tank NGS-064-A is used to store gasoline. However, this tank commenced construction in 1991. Therefore, the New Source Performance Standards for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification commenced after June 11, 1973, and Prior to May 19, 1978 (40 CFR 60.110-113, Subpart K) are not applicable.
- (h) Tank NGS-064-A is used to store gasoline and commenced construction in 1991. However, the maximum capacity of this tank is less than 40,000 gallons. Therefore, the New Source Performance Standards for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification commenced after May 19, 1978 (326 IAC 12, 40 CFR 60.110a-115a, Subpart Ka) are not applicable.
- (i) The storage tanks NGS-062-A through NGS-074-A, NGS-075-B, NGS-078-A, NGS-082-A, and NGS-083A commenced construction after July 23, 1984. Only the diesel storage tank NGS-075-B has a maximum storage capacity greater than 75 cubic meters (19,813 gallons). Since the diesel fuel stored in tank NGS-075-B has a maximum true vapor pressure of less than 3.5 kPa; tank NGS-075-B is exempt from the requirements of the Standards of Performance for Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 (40 CFR 60.110b-117b, Subpart Kb), pursuant to 40 CFR 60.110b(b). Therefore, the requirements of this NSPS are not applicable.

- (j) The emergency generators EG1 through EG3 commenced construction prior to July 11, 2005, and the source indicated these units have not been modified since their installation. Therefore, these generators are not subject to the requirements of the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40 CFR Part 60.4200-4219, Subpart IIII).
- (k) This existing source is a major source for HAPs. However, an electric utility steam generating unit is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters (40 CFR 63.7480-7575, Subpart DDDDD), pursuant to 40 CFR 63.7491(c). Therefore, the coal fired boilers (U1 through U3) and the auxiliary boilers (AUX A and AUX B) at this source, which are considered electric utility steam generating units, are not subject to the requirements of 40 CFR 63, Subpart DDDDD.
- (l) The parts washers at this source do not use halogenated HAP solvents. Therefore, these units are not subject to the requirements of the NESHAP for Halogenated Solvent Cleaning (40 CFR 63, Subpart T).
- (m) Emergency generators EG2 and EG3 are each rated less than 500 horsepower. Therefore, these generators are not subject to the requirements contained in the NESHAP for Stationary Reciprocating Internal Combustion Engines (40 CFR 63.6580-6675, Subpart ZZZZ). Emergency generator EG1 is rated at 515 horsepower. However, it is considered an existing emergency stationary reciprocating internal combustion engine because it was constructed before December 19, 2002. Emergency generator EG1 is exempt for the requirements in 40 CFR 63, Subpart ZZZZ, pursuant to 40 CFR 63.6590(b)(3).
- (n) The SO₂ emissions from existing boilers U1 through U3 are subject to the SO₂ emission limit in 40 CFR 52.145(d)(2). Pursuant to 40 CFR 52.145(d)(4), the permittee is required to install SO₂ CEMS to monitor the SO₂ emissions from boilers U1 through U3. This continuous monitoring requirement has been incorporated into this Part 71 permit as Condition II.B.4. Therefore, the SO₂ emissions from existing boilers U1 through U3 are exempt from the requirements of 40 CFR 64 (Compliance Assurance Monitoring), pursuant to 40 CFR 64.2(b)(1)(vi).

There are no specific NO_x emission limits from existing boilers U1 through U3, except for the NO_x emission limits in the Acid Rain permit. Pursuant to 40 CFR 64.2(b)(1)(iii), the emission limits established in the Acid Rain program are exempt from the CAM requirements. Therefore, CAM requirements are not applicable to the NO_x emissions from boilers U1 through U3.

There are no specific PM/PM₁₀ emission limitations for the boilers, the coal handling operations, or the ash handling operations. Therefore, the requirements of 40 CFR 64 (CAM) are not applicable to these units. The limestone handling

operations at this source are subject to the PM emission limit in 40 CFR 60, Subpart OOO. However, the pre-control PTE of baghouse DC-11 is less than the major source threshold. Therefore, baghouse DC-11 is not subject to CAM. Baghouses DC-9 and DC-10 are used to control PM/PM10 emissions from truck dumping. There are no NSPS or any applicable emission limit for the units controlled by baghouses DC-9 and DC-10. Therefore, baghouses DC-9 and DC-10 are not subject to CAM.

- (o) 40 CFR 52.145(d) (Visibility Protection) has specific requirements for the three (3) coal fired boilers at Navajo Generating Station. Pursuant to 40 CFR 52.145(d)(2), the SO₂ emissions from each of the coal fired boilers (boilers U1, U2, and U3) shall not exceed 42 ng/J (0.1 lbs/MMBtu) heat input. Pursuant to 40 CFR 52.145(d)(3), compliance with the emission limit shall be determined daily on a plant-wide rolling annual basis.
- (p) This source is potentially subject to the Regional Haze Rule (40 CFR 51.308) because it is a major stationary source which was constructed between 1962 and 1977 and has the potential to emit visibility impairing pollutants (primarily NO_x, SO₂, and PM) greater than 250 tons per year. Pursuant to 40 CFR 51.308(e), States are required to submit implementation plans that, among other measures, contain either emission limits representing Best Available Retrofit Technology (BART) for certain sources constructed between 1962 and 1977, or alternative measures that provide for greater reasonable progress than BART. Although tribes are not required to submit regional haze implementation plans, they may seek approval to develop a regional haze program under 40 CFR 49.

Pursuant to the 1991 Visibility FIP (40 CFR 52.145(d)), this source was required to phase-in compliance with the SO₂ emission limit, by installing scrubbers in 1997, 1998, and 1999. Further improvements may be necessary for other visibility impairing pollutants.

- (q) The permittee is subject to the requirements of the Asbestos NESHAP (40 CFR 61, Subpart M). The applicable requirements are specified in the permit document.
- (r) The permittee is subject to the requirements of 40 CFR 82 (Protection of Stratospheric Ozone). The applicable requirements are specified in the permit document.

Summary of Applicable Federal Requirements

Federal Air Quality Requirement	Current or Future Requirement
Acid Rain Regulations (40 CFR 72-76)	Current
Visibility FIP (40 CFR 52.145(d))	Current
NSPS for Nonmetallic Mineral Processing Plants (40 CFR 60, Subpart OOO)	Current

Asbestos NESHAP (40 CFR 61, Subpart M)	Current
Protection of Stratospheric Ozone (40 CFR 82)	Current
Federal Implementation Plan (40 CFR 49.20)	Future
Regional Haze Rule (BART)	Future

5. Additional Requirement

The First Reopening to Navajo Generating Station's first Part 71 Permit, was issued on November 13, 2003 to include the requirements of 40 CFR 60, Subpart OOO for the existing limestone handling system. These requirements include PM and opacity limits for the limestone operation. In order to demonstrate compliance with these requirements and pursuant CFR 71.6(a)(3), the reopening permit issued on November 13, 2003 also includes the following testing, monitoring, and recordkeeping requirements for baghouses DC-9, DC-10, and DC-11 which are used to control the emissions from the limestone handling system:

- (a) Once per five (5) years stack testing for particulate matter emissions from the exhaust stacks of baghouses DC-9, DC-10, and DC-11 shall be conducted using EPA Method 5 or Method 17. In addition, if during any twelve (12) consecutive month period visible emissions are observed three times from any one baghouse, the permittee shall conduct a performance test on that baghouse within 120 days of the third observation.
- (b) The permittee shall conduct a weekly visual emission survey of the exhaust stacks of baghouses DC-9, DC-10, and DC-11 while the equipment is operating and during daylight hours, by a person certified in EPA Method 9. If any visible emissions are observed, the permittee shall conduct an opacity test using EPA Method 9 within 24 hours while the equipment is operating in accordance with 40 CFR 60.675.
- (c) Record and maintain the following records for each visible emission observation or Method 9 opacity test:
 - 1. the date and time of the observation, and the name of the observer.
 - 2. the unit ID number.
 - 3. statement of whether visible emissions were detected, and if so, whether they were observed continuously or intermittently.
 - 4. result of Method 9 test, if required.

The above requirements have been included in the Part 71 permit renewal.

6. Endangered Species Act

Pursuant to Section 7 of the Endangered Species Act (ESA), 16 U.S.C. § 1536, and its implementing regulations at 50 CFR Part 402, USEPA is required to ensure that any action authorized, funded, or carried out by USEPA is not likely to jeopardize the continued existence of any Federally-listed endangered species or threatened species or result in the destruction or adverse modification of such species' designated critical habitat. NNEPA is issuing this federal Part 71 permit pursuant to a delegation from USEPA. However, this permit does not authorize the construction of new emission units, or emission increases from existing units, nor does it otherwise authorize any other physical modifications to the facility or its operations. Therefore, NNEPA and USEPA have concluded that the issuance of this permit will have no effect on listed species or their critical habitat.

7. Use of All Credible Evidence

Determinations of deviations, continuous or intermittent compliance status, or violations of the permit are not limited to the testing or monitoring methods required by the underlying regulations or this permit; other credible evidence (including any evidence admissible under the Federal Rules of Evidence) must be considered by the source, NNEPA, and U.S. EPA in such determinations.

8. NNEPA Authority

Authority to administer the Part 71 Permit Program was delegated to the Navajo Nation EPA by USEPA Region IX in part on October 13, 2004 and in whole on March 21, 2006. This permit is issued pursuant to the Voluntary Compliance Agreement between the permittee and the Navajo Nation. The permittee shall comply with the terms of this permit and shall be subject to enforcement of the permit by the Navajo Nation EPA, pursuant to the terms of the Voluntary Compliance Agreement. The permittee's agreement to comply is effective upon the permittee's written acceptance of the permit and expires at the end of the permit term, unless the permit is renewed. The permittee's agreement to comply may be withdrawn during the permit term only if the Voluntary Compliance Agreement is terminated or expires as provided in that Agreement.

Public Participation

a. **Public Notice**

As describe in 40 C.F.R. § 71.11(a)(5), all draft operating permits shall be publicly noticed and made available for public comment. The public notice of permit actions and the public comment period is described in 40 C.F.R. § 71.11(d).

There is a 30 day public comment period for actions pertaining to a draft permit. Public notice will be given for this draft permit by mailing a copy of the notice to the permit applicant, the Navajo Nation Environmental Protection Agency, and the affected state (Arizona). A copy of the notice will also be provided to all persons who submitted a written request to be included on the mailing list.

Charlene Nelson
Navajo Nation Operating Permit Program
P.O. Box 529
Fort Defiance, AZ 86504

E-mail: charlenenelson@navajo.org

Public notice will be published in a daily or weekly newspaper of general circulation in the area affected by this source.

b. **Opportunity for Comment**

Members of the public may review a copy of the draft permit prepared by NNEPA, this statement of basis for the draft permit, the application, and all supporting materials submitted by the source at:

Navajo Nation Air Quality Control Program
Route 112 North, Bldg No. F004-51
Fort Defiance, AZ 86504

Copies of the draft permit and this statement of basis can also be obtained free of charge from NNEPA's website

www.navajonationepa.org/airqty/permits

or by contacting Charlene Nelson at the NNAQCP address listed above or by telephone at (928) 729-4247. All documents will be available for review at the NNAQCP office indicated above during regular business hours.

If you have comments on the draft permit, you must submit them during the 30-day public comment period. All comments received during the public comment period and all comments made at any public hearing will be considered in arriving at a final decision on the permit. The final permit is a public record that can be obtained

by request. A statement of reason for changes made to the draft permit and responses to comments received will be sent to persons who commented on the draft permit.

If you believe that any condition of the draft permit is inappropriate, you must raise all reasonably ascertainable issues and submit all arguments supporting your position by the end of the comment period. Any supporting documents must be included in full and may not be incorporated by reference, unless they are already part of the administrative record for this permit or consist of tribal, state or federal statutes or regulations, or other generally available referenced materials.

c. Opportunity to Request a Hearing

A person may submit a written request for a public hearing to Charlene Nelson, at the address listed in Section 7(a) above, by stating the nature of the issues to be raised at the public hearing. Based on the number of hearing requests received, NNEPA will hold a public hearing whenever it finds there is a significant degree of public interest in a draft operating permit. If a public hearing is held, NNEPA will provide public notice of the hearing and any person may submit oral or written statements and data concerning the draft permit.

d. Mailing List

If you would like to be added to our mailing list to be informed of future actions on this or other Clean Air Act permits issued on the Navajo Nation, please send your name and address to Charlene Nelson at the address listed above.

**Appendix A: Emission Calculations
Criteria Pollutant Emissions from
the Coal Fired Boiler U1**

**Company Name: Navajo Generating Station
Address: 5 miles east of Page, off U.S. Highway 98, Page, AZ 86040
Permit No.: NN-ROP-05-06
Reviewer: ERG/YC
Date: August 17, 2007**

Max. Heat Input Capacity
MMBtu/hr

7,725

Ash Content (A)

13.5 % (provided by the source)

Emission Factor	Pollutant					
	PM ^a 0.06 (lbs/MMBtu)	PM10 ^b 0.3305 (2.3A*0.01+0.02) (lbs/ton)	SO ₂ ^c 0.10 (lbs/MMBtu)	NOx ^c 0.45 (lbs/MMBtu)	VOC ^d 0.06 (lbs/ton)	CO ^d 0.50 (lbs/ton)
Potential to Emit in (tons/yr)	2,030	519	3,384	15,226	94.2	785

^a PM emission factor is the emission limit in 40 CFR 49.20.

^b PM10 emission factor is from AP-42, Tables 1.1-4 and 1.1-5 (09/98). Assume the ESP control efficiency is 99%. PM10 emission factor is filterable PM10 emission factor and condensable PM emission factor combined.

^c The SO₂ emission factor is based on the emission limit in 40 CFR 52.145(d) and the NOx emission factor is based on the emission limit in the Acid Rain Permit.

^d VOC and CO emission factors are from AP-42, Tables 1.1-3 and 1.1-19 (09/98).

The heating value of the coal used at this plant is 21.562 MMBtu/ton, provided by the Permittee.

Methodology

PTE of PM10, VOC, and CO (tons/yr) = Max. Heat Input (MMBtu/hr) / 21.562 MMBtu/ton x Emission Factor (lbs/ton) x 8760 hrs/yr x 1 ton/2,000 lbs

PTE of PM, SO₂, and NOx (tons/yr) = Max. Heat Input (MMBtu/hr) x Emission Factor (lbs/MMBtu) x 8760 hr/yr x 1 ton/2,000 lbs

**Appendix A: Emission Calculations
Criteria Pollutant Emissions from
the Coal Fired Boiler U2**

**Company Name: Navajo Generating Station
Address: 5 miles east of Page, off U.S. Highway 98, Page, AZ 86040
Permit No.: NN-ROP-05-06
Reviewer: ERG/YC
Date: August 17, 2007**

Max. Heat Input Capacity
MMBtu/hr

7,725

Ash Content (A)

13.5

% (provided by the source)

Emission Factor	Pollutant					
	PM ^a	PM10 ^b	SO ₂ ^c	NOx ^c	VOC ^d	CO ^d
	0.06	0.3305	0.10	0.45	0.06	0.50
	(lbs/MMBtu)	(2.3A*0.01+0.02) (lbs/ton)	(lbs/MMBtu)	(lbs/MMBtu)	(lbs/ton)	(lbs/ton)
Potential to Emit in (tons/yr)	2,030	519	3,384	15,226	94.2	785

^a PM emission factor is the emission limit in 40 CFR 49.20.

^b PM10 emission factor is from AP-42, Tables 1.1-4 and 1.1-5 (09/98). Assume the ESP control efficiency is 99%. PM10 emission factor is filterable PM10 emission factor and condensable PM emission factor combined.

^c The SO₂ emission factor is based on the emission limit in 40 CFR 52.145(d) and the NOx emission factor is based on the emission limit in the Acid Rain Permit.

^d VOC and CO emission factors are from AP-42, Tables 1.1-3 and 1.1-19 (09/98).

The heating value of the coal used at this plant is 21.562 MMBtu/ton, provided by the Permittee.

Methodology

PTE of PM10, VOC, and CO (tons/yr) = Max. Heat Input (MMBtu/hr) / 21.562 MMBtu/ton x Emission Factor (lbs/ton) x 8760 hrs/yr x 1 ton/2,000 lbs

PTE of PM, SO₂, and NOx (tons/yr) = Max. Heat Input (MMBtu/hr) x Emission Factor (lbs/MMBtu) x 8760 hr/yr x 1 ton/2,000 lbs

**Appendix A: Emission Calculations
Criteria Pollutant Emissions from
the Coal Fired Boiler U3**

**Company Name: Navajo Generating Station
Address: 5 miles east of Page, off U.S. Highway 98, Page, AZ 86040
Permit No.: NN-ROP-05-06
Reviewer: ERG/YC
Date: August 17, 2007**

Max. Heat Input Capacity
MMBtu/hr

7,725

Ash Content (A)

13.5 % (provided by the source)

Emission Factor	Pollutant					
	PM ^a	PM10 ^b	SO ₂ ^c	NOx ^c	VOC ^d	CO ^d
	0.06	0.3305 (2.3A*0.01+0.02)	0.10	0.45	0.06	0.50
	(lbs/MMBtu)	(lbs/ton)	(lbs/MMBtu)	(lbs/MMBtu)	(lbs/ton)	(lbs/ton)
Potential to Emit in (tons/yr)	2,030	519	3,384	15,226	94.2	785

^a PM emission factor is the emission limit in 40 CFR 49.20.

^b PM10 emission factor is from AP-42, Tables 1.1-4 and 1.1-5 (09/98). Assume the ESP control efficiency is 99%. PM10 emission factor is filterable PM10 emission factor and condensable PM emission factor combined.

^c The SO₂ emission factor is based on the emission limit in 40 CFR 52.145(d) and the NOx emission factor is based on the emission limit in the Acid Rain Permit.

^d VOC and CO emission factors are from AP-42, Tables 1.1-3 and 1.1-19 (09/98).

The heating value of the coal used at this plant is 21.562 MMBtu/ton, provided by the Permittee.

Methodology

PTE of PM10, VOC, and CO (tons/yr) = Max. Heat Input (MMBtu/hr) / 21.562 MMBtu/ton x Emission Factor (lbs/ton) x 8760 hrs/yr x 1 ton/2,000 lbs

PTE of PM, SO₂, and NOx (tons/yr) = Max. Heat Input (MMBtu/hr) x Emission Factor (lbs/MMBtu) x 8760 hr/yr x 1 ton/2,000 lbs

Appendix A: Emission Calculations
HAP Emissions
From the Coal Fired Boilers U1 through U3

Company Name: Navajo Generating Station
Address: 5 miles east of Page, off U.S. Highway 98, Page, AZ 86040
Permit No.: NN-R0P-05-06
Reviewer: ERG/YC
Date: August 17, 2007

Emission Unit:
 Max. Heat Input Capacity (MMBtu/hr):

Boiler U1
 7,725

Boiler U2
 7,725

Boiler U3
 7,725

Pollutant	Emission Factor (lbs/ton of Coal)	PTE of HAP for B1 (tons/yr)	PTE of HAP for B2 (tons/yr)	PTE of HAP for B3 (tons/yr)
Total PCDD	6.66E-10	1.05E-06	1.05E-06	1.05E-06
Total PCDF	1.09E-09	1.71E-06	1.71E-06	1.71E-06
Total PAH	2.08E-05	0.03	0.03	0.03
Acetaldehyde	5.70E-04	0.89	0.89	0.89
Acetophenone	1.50E-05	0.02	0.02	0.02
Acrolein	2.90E-04	0.46	0.46	0.46
Benzene	1.30E-03	2.04	2.04	2.04
Benzyl Chloride	7.00E-04	1.10	1.10	1.10
DEHP	7.30E-05	0.11	0.11	0.11
Bromoform	3.90E-05	0.06	0.06	0.06
Carbon Disulfide	1.30E-04	0.20	0.20	0.20
2-Chloroacetophenone	7.00E-06	0.01	0.01	0.01
Chlorobenzene	2.20E-05	0.03	0.03	0.03
Chloroform	5.90E-05	0.09	0.09	0.09
Cumene	5.30E-06	0.01	0.01	0.01
Cyanide	2.50E-03	3.92	3.92	3.92
2,4-Dinitrotoluene	2.80E-07	0.00	0.00	0.00
Dimethyl Sulfate	4.80E-05	0.08	0.08	0.08
Ethyl Benzene	9.40E-05	0.15	0.15	0.15
Ethyl Chloride	4.20E-05	0.07	0.07	0.07
Ethylene Dichloride	4.00E-05	0.06	0.06	0.06
Ethylene Dibromide	1.20E-06	0.00	0.00	0.00
Formaldehyde	2.40E-04	0.38	0.38	0.38
Hexane	6.70E-05	0.11	0.11	0.11
Isophorone	5.80E-04	0.91	0.91	0.91
Methyl Bromide	1.60E-04	0.25	0.25	0.25
Methyl Chloride	5.30E-04	0.83	0.83	0.83
Methyl Hydrazine	1.70E-04	0.27	0.27	0.27
Methyl Methacrylate	2.00E-05	0.03	0.03	0.03
Methyl Tert Butyl Ether	3.50E-05	0.05	0.05	0.05
Methylene Chloride	2.90E-04	0.46	0.46	0.46
Phenol	1.60E-05	0.03	0.03	0.03
Propionaldehyde	3.80E-04	0.60	0.60	0.60
Tetrachloroethylene	4.30E-05	0.07	0.07	0.07
Toluene	2.40E-04	0.38	0.38	0.38
Styrene	2.50E-05	0.04	0.04	0.04
Xylenes	3.70E-05	0.06	0.06	0.06
Vinyl Acetate	7.60E-06	0.01	0.01	0.01
Antimony	1.80E-05	0.03	0.03	0.03
Arsenic	4.10E-04	0.64	0.64	0.64
Beryllium	2.10E-05	0.03	0.03	0.03
Cadmium	5.10E-05	0.08	0.08	0.08
Chromium	2.60E-04	0.41	0.41	0.41
Chromium (VI)	7.90E-05	0.12	0.12	0.12
Cobalt	1.00E-04	0.16	0.16	0.16
Lead	4.20E-04	0.66	0.66	0.66
Manganese	4.90E-04	0.77	0.77	0.77
Mercury	8.30E-05	0.13	0.13	0.13
Nickel	2.80E-04	0.44	0.44	0.44
Selenium	1.30E-03	2.04	2.04	2.04
Hydrogen Fluoride*	7.50E-03	11.8	11.8	11.8
Hydrogen Chloride*	6.00E-02	94.2	94.2	94.2
Total		125	125	125

Note: Emission factors from AP-42, Tables 1.1-12, 1.1-13, 1.1-14, and 1.1-18 for Coal Combustion (09/98).

* These emission factors are based on the uncontrolled emission factors in AP-42, Table 1.1-15 (09/98) and the scrubber control efficiency of 95% for these pollutants.

The heating value of the coal used at this plant is 21.562 MMBtu/ton, provided by the Permittee.

Methodology

$$\text{PTE of HAP (tons/yr)} = \text{Max. Heat Input (MMBtu/hr)} / 21.6 \text{ MMBtu/ton} \times \text{Emission Factor (lbs/ton)} \times 8760 \text{ hrs/yr} \times 1 \text{ ton}/2000 \text{ lbs}$$

Appendix A: Emission Calculations
No. 2 Fuel Oil Combustion
(MMBtu/hr > 100)
From Two (2) 308 MMBtu/hr Auxiliary Boilers

Company Name: Navajo Generating Station
Address: 5 miles east of Page, off U.S. Highway 98, Page, AZ 86040
Permit No.: NN-ROP-05-06
Reviewer: ERG/YC
Date: August 17, 2007

Heat Input Capacity MMBtu/hr	Max. Fuel Usage (kgal/hr)	S = Weight % Sulfur				
<div>308</div> (each)	<div>2.1</div> (each)	<div>0.5</div>				
Emission Factor in lbs/kgal	Pollutant					
	PM* 3.3	PM10* 3.3	SO ₂ 78.5 (157 S)	NO _x 24.0	VOC 0.2	CO 5.0
Potential to Emit in tons/yr	60.7	60.7	1,444	442	3.68	92.0

*PM10 emission factor is for condensable and filterable PM10 combined. Assume PM emission factor is equal to PM10 emission factor.
Emission factors are from AP-42, Tables 1.3-1, 1.3-2, and 1.3-3 (AP-42, 09/98).

Methodology

PTE (tons/yr) = Max. Fuel Usage (kgal/hr) x Emission Factor (lbs/kgal) x 8760 hrs/yr x 1 ton/2000 lbs x 2 units

**Appendix A: Emission Calculations
HAP Emissions
From Two (2) 308 MMBtu/hr Auxiliary Boilers**

**Company Name: Navajo Generating Station
Address: 5 miles east of Page, off U.S. Highway 98, Page, AZ 86040
Permit No.: NN-ROP-05-06
Reviewer: ERG/YC
Date: August 17, 2007**

Heat Input Capacity
MMBtu/hr

Max. Fuel Usage
(kgal/hr)

308 (each)

2.1 (each)

Emission Factor in lbs/kgal	Pollutant					
	Chloride 3.47E-01	Nickel 8.45E-02	Fluoride 3.73E-02	Vanadium 3.18E-02	Formaldehyde 3.30E-02	Total HAPs 6.05E-01
Potential to Emit in tons/yr	6.38	1.55	0.69	0.58	0.61	11.1

Emission factors are from AP-42, Tables 1.3-9 and 1.3-11 (AP-42, 09/98).

The emission factor for total HAPs is the sum of the emission factors for organic HAP and metals.

Methodology

PTE (tons/yr) = Max. Fuel Usage (kgal/hr) x Emission Factor (lbs/kgal) x 8760 hrs/yr x 1 ton/2000 lbs x 2 units

**Appendix A: Emission Calculations
PM and PM10 Emissions
From Coal Handling Operations**

Company Name: Navajo Generating Station
Address: 5 miles east of Page, off U.S. Highway 98, Page, AZ 86040
Permit No.: NN-ROP-05-06
Reviewer: ERG/YC
Date: August 17, 2007

Unit Description	Number of Units	Max. Capacity (tons/hr/unit)	PM Emission Factor* (lbs/ton)	PTE of PM before Control (tons/yr)	PM10 Emission Factor* (lbs/ton)	PTE of PM10 before Control (tons/yr)	Control Method	Control Efficiency (%)	PTE of PM after Control (tons/yr)	PTE of PM10 after Control (tons/yr)
Railcar Unloading	1	10,000	0.00010	4.38	0.00010	4.38	None	0.00%	4.38	4.38
Feeders	12	200	0.00014	1.47	4.60E-05	0.48	None	0.00%	1.47	0.48
Conveyors BC-1 through BC-4	4	1,800	0.00014	4.42	4.60E-05	1.45	Dust Collector DC-8	99.0%	0.04	0.01
Conveyor BC-4A	1	100	0.00014	0.06	4.60E-05	0.02	Dust Collector DC-8	99.0%	6.13E-04	2.01E-04
Conveyors BFD-5A and BC-5	2	1,800	0.00014	2.21	4.60E-05	0.73	Dust Collector DC-8	99.0%	2.21E-02	7.25E-03
Conveyor BC-6	1	1,500	0.00014	0.92	4.60E-05	0.30	Dust Collector DC-8	99.0%	9.20E-03	3.02E-03
Conveyors BC-6A through BC-6C	3	1,800	0.00014	3.31	4.60E-05	1.09	None	0.00%	3.31	1.09
Conveyor BC-7	1	1,500	0.00014	0.92	4.60E-05	0.30	None	0.00%	9.20E-01	3.02E-01
Yard Surge Bin YSB-1	1	1,800	0.00014	1.10	4.60E-05	0.36	Dust Collector DC-8	99.0%	1.10E-02	3.63E-03
Conveyors BC-8A and BC-8B	2	1,500	0.00014	1.84	4.60E-05	0.60	Dust Collector DC-8	99.0%	1.84E-02	6.04E-03
Plant Surge Bin PSB-1	1	3,000	0.00014	1.84	4.60E-05	0.60	Dust Collector DC-5	99.0%	1.84E-02	6.04E-03
Conveyors BC-9A and BC-9B	2	1,500	0.00014	1.84	4.60E-05	0.60	Dust Collector DC-5	99.0%	1.84E-02	6.04E-03
Conveyors BC-10A and BC-10B	2	1,500	0.00014	1.84	4.60E-05	0.60	Dust Collector DC-5	99.0%	1.84E-02	6.04E-03
Three (3) enclosed cascading conveying systems	3	1,500	0.00014	2.76	4.60E-05	0.91	Dust Collectors DC-1 through DC-4, DC-6, and DC-7	99.0%	2.76E-02	9.07E-03
Silos 1A through 1G	7	3,000	0.00014	12.9	4.60E-05	4.23	Dust Collector/Baghouse	99.0%	1.29E-01	4.23E-02
Silos 2A through 2G	7	3,000	0.00014	12.9	4.60E-05	4.23	Dust Collector/Baghouse	99.0%	1.29E-01	4.23E-02
Silos 3A through 3G	7	3,000	0.00014	12.9	4.60E-05	4.23	Dust Collector/Baghouse	99.0%	1.29E-01	4.23E-02
Total				67.5		25.1			10.7	6.44

* The emission factors are from AP-42, Table 11.19.2-2 (08/04).

Since the coal received at this facility has high moisture content (6.9%), the controlled emission factors in AP-42, Table 11.19.2-2 are used in the PTE calculations.

Methodology

PTE of PM/PM10 before Control (tons/yr) = Number of Units x Max. Capacity (tons/hr/unit) x Uncontrolled Emission Factor (lbs/ton) x 8760 hrs/yr x 1 ton/2000 lbs

PTE of PM/PM10 after Control (tons/yr) = PTE of PM/PM10 before Control (tons/yr) x (1-Control Efficiency)

**Appendix A: Emission Calculations
Potential PM and PM10 Emissions
From the Coal Storage Piles (Fugitive Emissions)**

**Company Name: Navajo Generating Station
Address: 5 miles east of Page, off U.S. Highway 98, Page, AZ 86040
Permit No.: NN-ROP-05-06
Reviewer: ERG/YC
Date: August 17, 2007**

1. Emission Factors:

According to AP-42, Chapter 13.2.4 - Aggregate Handling and Storage Piles (11/06), the PM/PM10 emission factors for aggregate handling process can be estimated from the following equation:

$$E_f = \frac{k \times 0.0032 \times (U/5)^{1.3}}{(M/2)^{1.4}}$$

where:

E_f = Emission Factor (lbs/ton)

k = Particle size multipliers =

U = Mean wind speed (mph) =

M = Moisture content (%) =

0.74 for PM and 0.35 for PM10

3.2 mph (provided by the source based on the data in 1999)

3 % (provided by the source)

Therefore,

PM Emission Factor = 0.0008 lbs/ton

PM10 Emission Factor = 0.0004 lbs/ton

2. Potential to Emit PM/PM10 before Control:

Max. Throughput Rate: 3,300 tons/hr

PTE of PM (tons/yr) = 3,300 tons/hr x 0.0008 lbs/ton x 8760 hrs/yr x 1 ton/2000 lbs = **10.9 tons/yr**

PTE of PM10 (tons/yr) = 3,300 tons/hr x 0.0004 lbs/ton x 8760 hrs/yr x 1 ton/2000 lbs = **5.14 tons/yr**

3. Potential to Emit PM/PM10 after Control:

Control Efficiency : 50% for water suppression

PTE of PM after Control (tons/yr) = 10.9 tons/yr x (1-50%) = **5.43 tons/yr**

PTE of PM10 after Control (tons/yr) = 5.14 tons/yr x (1-50%) = **2.57 tons/yr**

**Appendix A: Emission Calculations
PM and PM10 Emissions
From Limestone Handling System**

**Company Name: Navajo Generating Station
Address: 5 miles east of Page, off U.S. Highway 98, Page, AZ 86040
Permit No.: NN-ROP-05-06
Reviewer: ERG/YC
Date: August 17, 2007**

Unit Description	Number of Unit	Max. Capacity (tons/hr)	PM Emission Factor* (lbs/ton)	Uncontrolled PM Emissions (tons/yr)	PM10 Emission Factor* (lbs/ton)	Uncontrolled PM10 Emissions (tons/yr)
Truck Unloading	2	38.0	0.0001	0.03	0.0001	0.03
Feeders	2	36.0	0.0030	0.95	0.0011	0.35
Cleanout Conveyors	2	5.00	0.0030	0.13	0.0011	0.05
Ball Mills	2	36.0	0.0054	1.70	0.0024	0.76
Total				2.81		1.19

* The emission factor is from AP-42, Table 11.19.2-2 (08/04).

Methodology

Uncontrolled Emissions (tons/yr) = Num. of Units x Max. Capacity (tons/hr) x Emission Factor (lbs/ton) x 8760 hr/yr x 1 ton/2000 lbs

Dust Collector ID	Grain Loading (gr/acfm)	Flow Rate (acfm)	Controlled PM/PM10 Emissions (lbs/hr)	Controlled PM/PM10 Emissions (tons/yr)	Control Efficiency (%)	Uncontrolled PM/PM10 Emissions (lbs/hr)	Uncontrolled PM/PM10 Emissions (tons/yr)
DC-9	0.001	17,950	0.15	0.67	99.0%	15.4	67.4
DC-10	0.001	17,950	0.15	0.67	99.0%	15.4	67.4
DC-11	0.001	12,000	0.10	0.45	99.0%	10.3	45.1
Total				1.80			180

Methodology

Controlled Emissions (lbs/hr) = Grain Loading (gr/acfm) x Flow Rate (acfm) x 60 mins/hr x 1 lb/7000 gr

Controlled Emissions (tons/yr) = Uncontrolled Emissions (lbs/hr) x 8760 hrs/yr x 1 ton/2000 lbs

Uncontrolled Emissions = Controlled Emissions / (1- Control Efficiency)

PTE of PM before Control:	183 tons/yr	PTE of PM after Control:	4.61 tons/yr
PTE of PM10 before Control:	181 tons/yr	PTE of PM10 after Control:	2.98 tons/yr

Appendix A: Emission Calculations
Potential PM and PM10 Emissions
From the Limestone Storage Piles (Fugitive Emissions)

Company Name: Navajo Generating Station
Address: 5 miles east of Page, off U.S. Highway 98, Page, AZ 86040
Permit No.: NN-ROP-05-06
Reviewer: ERG/YC
Date: August 17, 2007

1. Emission Factors:

According to AP-42, Chapter 13.2.4 - Aggregate Handling and Storage Piles (11/06), the PM/PM10 emission factors for aggregate handling process can be estimated from the following equation:

$$Ef = \frac{k \times 0.0032 \times (U/5)^{1.3}}{(M/2)^{1.4}}$$

where:

Ef = Emission Factor (lbs/ton)	
k = Particle size multipliers =	0.74 for PM and 0.35 for PM10
U = Mean wind speed (mph) =	3.2 mph (provided by the source based on the data in 1999)
M = Moisture content (%) =	1 % (provided by the source)

Therefore,

PM Emission Factor =	0.0035 lbs/ton
PM10 Emission Factor =	0.0017 lbs/ton

2. Potential to Emit PM/PM10 before Control:

Max. Throughput Rate: 600 tons/hr

PTE of PM (tons/yr) = 600 tons/hr x 0.0035 lbs/ton x 8760 hrs/yr x 1 ton/2000 lbs = **9.19 tons/yr**

PTE of PM10 (tons/yr) = 600 tons/hr x 0.0017 lbs/ton x 8760 hrs/yr x 1 ton/2000 lbs = **4.35 tons/yr**

3. Potential to Emit PM/PM10 after Control:

Control Efficiency : 50% for water suppression

PTE of PM after Control (tons/yr) = 9.19 tons/yr x (1-50%) = **4.60 tons/yr**

PTE of PM10 after Control (tons/yr) = 4.35 tons/yr x (1-50%) = **2.17 tons/yr**

**Appendix A: Emission Calculations
PM and PM10 Emissions
From the Fly Ash Handling System**

**Company Name: Navajo Generating Station
Address: 5 miles east of Page, off U.S. Highway 98, Page, AZ 86040
Permit No.: NN-ROP-05-06
Reviewer: ERG/YC
Date: August 17, 2007**

Unit Description	Number of Units	Max. Capacity (tons/hr/unit)	PM Emission Factor* (lbs/ton)	PTE of PM before Control (tons/yr)	PM10 Emission Factor* (lbs/ton)	PTE of PM10 before Control (tons/yr)	Control Method	Control Efficiency (%)	PTE of PM after Control (tons/yr)	PTE of PM10 after Control (tons/yr)
Fly Ash Silos	2	46	2.20	887	2.20	887	Dust Collectors	99.0%	8.87	8.87
Truck Loading for Fly Ash	2	38	0.61	203	0.61	203	Partially Enclosed	90.0%	20.3	20.3
Total				1,090		1,090			29.2	29.2

* The emission factors are from AP-42, Table 11.17-4 for Lime Manufacturing Process (02/98).

Assume the PM10 emissions are equal to PM emissions.

Methodology

PTE of PM/PM10 before Control (tons/yr) = Number of Units x Max. Capacity (tons/hr/unit) x Uncontrolled Emission Factor (lbs/ton) x 8760 hrs/yr x 1 ton/2000 lbs

PTE of PM/PM10 after Control (tons/yr) = PTE of PM/PM10 before Control (tons/yr) x (1-Control Efficiency)

Potential to Emit HAPs

HAP	HAP Concentration* (ppmw)	PTE of HAP (tons/yr)
Beryllium	3.50	1.02E-04
Chromium	37.8	1.10E-03
Lead	26.3	7.67E-04
Manganese	185	5.40E-03
Nickel	41.0	1.20E-03
Total HAPs		8.56E-03

* This is based on the concentrations presented in 1998 TRI report, provided by the source.

Methodology

PTE of HAP after Control (tons/yr) = PTE of PM/PM10 after Control (tons/yr) x HAP Concentration (ppmw) / 1,000,000

**Appendix A: Emission Calculations
PM and PM10 Emissions
From the Soda Ash/Lime Handling Systems**

**Company Name: Navajo Generating Station
Address: 5 miles east of Page, off U.S. Highway 98, Page, AZ 86040
Permit No.: NN-ROP-05-06
Reviewer: ERG/YC
Date: August 17, 2007**

Unit Description	Number of Units	Max. Capacity (tons/hr/unit)	PM/PM10 Emission Factor* (lbs/ton)	PTE of PM/PM10 before Control (tons/yr)	Control Method	Control Efficiency (%)	PTE of PM/PM10 after Control (tons/yr)
Soda Ash Silos	4	0.40	2.20	15.4	Dust Collector	99.0%	0.15
Lime Silos	2	0.57	2.20	11.0	Baghouse	99.0%	0.11
Total				26.4			0.26

* The emission factors are from AP-42, Table 11.17-4 for Lime Manufacturing Process (02/98).

Assume the PM10 emissions are equal to PM emissions.

Methodology

PTE of PM/PM10 before Control (tons/yr) = Number of Units x Max. Capacity (tons/hr/unit) x Uncontrolled Emission Factor (lbs/ton) x 8760 hrs/yr x 1 ton/2000 lbs

PTE of PM/PM10 after Control (tons/yr) = PTE of PM/PM10 before Control (tons/yr) x (1-Control Efficiency)

1. Process Description:

Circulation Flow Rate:	813,000 gal/min (6 cooling towers total)
Total Drift:	0.0009% of the circulating flow (provided by the source)
Total Dissolved Solids:	12,000 ppm
Density:	8.328 lbs/gal
% Not Deposited on Site:	10% (provided by the source)

2. Potential to Emit PM/PM10:

Assume PM emissions are equal to PM10 emissions.

$$\text{PTE of PM/PM10 (lbs/hr)} = 813,000 \text{ gal/min} \times 60 \text{ min/hr} \times 0.0009\% \times 8.328 \text{ lbs/gal} \times 12,000 \text{ ppm} \times 1/1,000,000 \text{ ppm} \times 10\% =$$

4.39 lbs/hr

$$\text{PTE of PM/PM10 (tons/yr)} = 4.40 \text{ lbs/hr} \times 8760 \text{ hrs/yr} \times 1 \text{ ton}/2000 \text{ lbs} =$$

19.2 tons/yr

**Appendix A: Emission Calculations
Fugitive Emissions
From Unpaved Roads**

**Company Name: Navajo Generating Station
Address: 5 miles east of Page, off U.S. Highway 98, Page, AZ 86040
Permit No.: NN-ROP-05-06
Reviewer: ERG/YC
Date: August 17, 2007**

1. Emission Factors:

According to AP42, Chapter 13.2.2 - Unpaved Roads (11/06), the PM/PM10 emission factors for unpaved roads can be estimated from the following equation:

$$E = k \times (s/12)^a \times (w/3)^b$$

where:

E = emission factor (lb/vehicle mile traveled)

s = surface material silt content (%) =

w = mean vehicle weight (tons) =

k = empirical constant =

a = empirical constant =

b = empirical constant =

5.1 % (AP-42, Table 13.2.2-1)

88.1 tons (see the calculations below)

4.9 for PM and 1.5 for PM10

0.7 for PM and 0.9 for PM10

0.45

$$\text{PM Emission Factor} = 4.9 \times (5.1/12)^{0.7} \times (88.1/3)^{0.45} = 12.3 \text{ lbs/mile}$$

$$\text{PM10 Emission Factor} = 1.5 \times (5.1/12)^{0.9} \times (88.1/3)^{0.45} = 3.18 \text{ lbs/mile}$$

2. Potential to Emit (PTE) of PM/PM10 Before Control from Unpaved Roads:

Vehicle Type	Number of Units	Ave. Vehicle Weight* (tons)	Vehicle Miles Traveled* (VMT) (miles/day/unit)	Total Vehicle Miles Traveled (VMT) (miles/yr)	Traffic Component (%)	Component Vehicle Weight (tons)	PTE of PM (tons/yr)	PTE of PM10 (tons/yr)
Service/Fuel Truck	1	16.5	15.0	5,475	2.85%	0.47	33.7	8.70
Service/Fuel Truck	1	13.2	18.0	6,570	3.42%	0.45	40.5	10.4
Ash Trucks	3	102	90.0	98,550	51.3%	52.3	607	157
Ash Truck	1	102	12.0	4,380	2.28%	2.33	27.0	6.96
D65 Dozer	1	22.0	5.00	1,825	0.95%	0.21	11.2	2.90
D31 Dozer	1	8.00	2.00	730	0.38%	0.03	4.50	1.16
Rubber Tire Dozer	1	33.5	1.00	365	0.19%	0.06	2.25	0.58
13-Yard Loader	1	72.0	7.00	2,555	1.33%	0.96	15.7	4.06
6-Yard Loader	1	24.0	2.00	730	0.38%	0.09	4.50	1.16
2.5-Yard Loaders	2	12.5	2.00	1,460	0.76%	0.10	8.99	2.32
7-Yard Loader	1	54.5	1.00	365	0.19%	0.10	2.25	0.58
8,000-Gallon Waterpulls	1	36.5	30.0	10,950	5.70%	2.08	67.4	17.4
12,000-Gallon Waterpulls	1	115	127	46,355	24.1%	27.8	286	73.7
12-Yard Crystallizer Trucks	3	13.0	2.00	2,190	1.14%	0.15	13.5	3.48
12-Yard Dump Trucks	4	11.6	1.00	1,460	0.76%	0.09	8.99	2.32
14G Grader	1	28.0	10.0	3,650	1.90%	0.53	22.5	5.80
EI 300 Excavator	1	34.0	0.14	51	0.03%	0.01	0.31	0.08
140H Grader	1	19.8	1.00	365	0.19%	0.04	2.25	0.58
Road Trucks	2	11.0	1.00	730	0.38%	0.04	4.50	1.16
724 Vac Truck	1	19.8	3.00	1,095	0.57%	0.11	6.74	1.74
2.5 Yar Loader (928)	3	12.5	2.00	2,190	1.14%	0.14	13.5	3.48
Total				192,041	100%	88.1	1,183	305

* This information is provided by the source.

Methodology

Component Vehicle Weight = Ave. Vehicle Weight (tons) x Traffic Component (%)

(Note that the summation of the component vehicle weight equals the Mean Vehicle Weight.)

VMT(miles/yr) = VMT (miles/day/unit) x 365 days/yr x Number of Units

PTE of PM/PM10 (tons/yr) = VMT (miles/yr) x Emission Factor (lbs/mile) x 1 ton/ 2000 lbs

3. Potential to Emit (PTE) of PM/PM10 after Control from Unpaved Roads:

Control Efficiency : 50% for continuous water suppression

$$\text{PTE of PM after Control} = 1,183 \text{ tons/yr} \times (1-50\%) = 591 \text{ tons/yr}$$

$$\text{PTE of PM10 after Control} = 305 \text{ tons/yr} \times (1-50\%) = 152.6 \text{ tons/yr}$$

Appendix A: Emission Calculations Internal Combustion Engines

From the Diesel Emergency Generators

Company Name: Navajo Generating Station

Address: 5 miles east of Page, off U.S. Highway 98, Page, AZ 86040

Permit No.: NN-ROP-05-06

Reviewer: ERG/YC

Date: August 17, 2007

Max. Heat Input
(MMBtu/hr)

Operation Limit
(hrs/yr)

9.52

(3 units total)

500

	Pollutant					
	PM	PM10	SO ₂	NO _x	VOC	CO
Emission Factor in lbs/MMBtu	0.31	0.31	0.29	4.41	0.35	0.95
Potential to Emit (PTE) in tons/yr	0.74	0.74	0.69	10.5	0.83	2.26

Emission factors are from AP-42, Table 3.3-1 (10/96).

Assume PM10 emissions equal PM emissions. TOC (total organic compounds) emissions equal VOC emissions.

Note: As defined in the September 6, 1995 memorandum from John S. Seitz of US EPA on the subject of "Calculating Potential to Emit for Emergency Generators", an emergency generator's sole function is to provide back-up power when power from the local utility is interrupted. The only circumstances under which an emergency generator would operate when utility power is available are during operator training or brief maintenance checks. The generator's potential to emit is based on an operating time of 500 hours per year as set forth in the EPA memo.

Methodology

PTE (tons/yr) = Heat Input (MMBtu/hr) x Emission Factor (lbs/MMBtu) x Operation Limit (hrs/yr) x 1 ton/2000 lbs

**Appendix A: Emission Calculations
PTE Summary**

Company Name: Navajo Generating Station

Address: 5 miles east of Page, off U.S. Highway 98, Page, AZ 86040

Permit No.: NN-ROP-05-06

Reviewer: ERG/YC

Date: August 17, 2007

Limited Potential To Emit after Control

Emission Units	PM	PM10	SO ₂	NO _x	VOC	CO	Total HAPs
Boiler U1	2,030	519	3,384	15,226	94.2	785	125
Boiler U2	2,030	519	3,384	15,226	94.2	785	125
Boiler U3	2,030	519	3,384	15,226	94.2	785	125
Auxiliary Boilers	60.7	60.7	1,444	442	3.68	92.0	11.1
Coal Handling Operations	10.66	6.44	-	-	-	-	-
Coal Piles (Fugitive)	5.43	2.57	-	-	-	-	-
Limestone Handling Operations	4.61	2.98	-	-	-	-	-
Limestone Piles (Fugitive)	4.60	2.17	-	-	-	-	-
Fly Ash Handling Operations	29.2	29.2	-	-	-	-	0.01
Soda Ash/Lime Handling Operations	0.26	0.26	-	-	-	-	-
Cooling Towers	19.2	19.2	-	-	-	-	-
Unpaved Roads (Fugitive)	591	153	-	-	-	-	-
Emergency Generators	0.74	0.74	0.69	10.5	0.83	2.26	Negligible
Other Insignificant Activities*	5.00	5.00	-	-	5.00	-	Negligible
Total PTE (tons/yr)	6,822	1,838	11,595	46,130	292	2,448	387

*Note: This is an estimate on the PM/PM10 emissions from the welding and blasting operations, and VOC/HAP emissions from the parts cleaning, surface coating operations, and the storage tanks.



Public Notice

**PROPOSED RENEWAL OF A PART 71 PERMIT
NAVAJO GENERATING STATION
A COAL FIRED POWER PLANT
LOCATED IN PAGE, ARIZONA**



The Navajo Nation Environmental Protection Agency (NNEPA) is accepting written comments on the renewal of a Part 71 permit for Navajo Generating Station, located at 5 Miles East of Page, off U.S. Highway 98, Page, Arizona 86040 on the Navajo Nation. Navajo Generating Station is an existing 2,250 net megawatt power plant with three (3) coal-fired boilers.

At the same time that NNEPA is proposing the Part 71 permit renewal and through a separate action, the Environmental Protection Agency (EPA) is proposing to renew the facility's acid rain permit and is accepting comments on the proposed acid rain permit renewal as well.

Written comments on the draft Part 71 permit renewal, written requests for a public hearing or written requests for notification of the final decision regarding this permit action or inquiries or requests for additional information regarding this permit action must be submitted to Charlene Nelson (Program Supervisor) at NAQCP, P.O. Box 529, Fort Defiance, AZ 86504. All correspondence should specify NN-ROP-05-06. Written comments and/or written requests must be received by February 9, 2008. Written comments will be considered prior to a final permit decision.

If NNEPA finds a significant degree of public interest, a public hearing will be held. NNEPA will send notification of the final permit decision to the applicant and to each person who has submitted written comments or a written request for notification of the final decision.

All comments on the draft acid rain permit renewal must be sent or delivered in writing to Roger Kohn at the address shown below by February 9, 2008.

Roger Kohn (AIR-3)
EPA Region 9
75 Hawthorne St.
San Francisco, CA 94105

The application, proposed Part 71 and acid rain permit, and statement of basis are available for review at the NNEPA, Navajo Air Quality Control Program, Fort Defiance, AZ 86504. Viewing hours are from 8:00 a.m. to 4:30 p.m., Monday through Friday (except holidays).

Inquiries or requests for additional information regarding this permit action should be directed to Charlene Nelson, of the Operating Permits Program section, P.O. Box 529, Fort Defiance, AZ 86504, phone (928) 729-4247.

Persons wishing to be included on the NAQCP permit public notice mailing list should contact Ms. Kendra Dale in writing at NAQCP, Operating Permit Program, P.O. Box 529, Fort Defiance, AZ 86504, phone (928) 729-4246, or by email at nnepanilchi@navajo.org. E-files of permit public notices and permits can be requested from the NNEPA (NAQCP) by email request at nnepanilchi@navajo.org.



**NAVAJO NATION ENVIRONMENTAL PROTECTION
AGENCY**

**Navajo Nation Operating Permit Program
Rt. 112 North, Building F004-051
P.O. Box 529, Fort Defiance, AZ 86504**



Detailed Information

Permitting Authority: NNEPA

County: Coconino

State: Arizona

AFS Plant ID: 04-005-N0423

Facility: Navajo Generating Station

Document Type: RESPONSES TO COMMENTS

RESPONSES TO COMMENTS

**on the Part 71 Permit Renewal to Operate
Navajo Generating Station**

Permit No. NN-ROP-05-06

On January 9, 2008, the Navajo Nation Environmental Protection Agency (NNEPA) had a notice published in the Navajo Times of Window Rock, Arizona, the Lake Powell Chronicle of Page, Arizona, and the Arizona Daily Sun of Flagstaff, Arizona stating that Navajo Generating Station, located 5 miles east of Page, Arizona, had applied for a Part 71 Operating Permit renewal to operate a coal-fired power plant. The notice also stated that NNEPA proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that they would have thirty (30) days to provide comments on whether or not the permit should be issued as proposed.

On February 8, 2008, Navajo Generating Station submitted comments on the proposed Part 71 Operating Permit. These comments are listed as Comments 1 through 20. On February 21, 2008, US EPA, Region 9 submitted comments on the proposed Part 71 Operating Permit. These comments are listed as Comments 21 through 27. This Response to Comment document provides responses to all of these comments. When permit language is included in the response, bolded language indicates additions to the permit and language with a line through it has been deleted from the permit.

Comments from the Permittee (Comments 1 through 20)

Comment 1:

For the Cover Letter: Section 5.4.3 of the VCA specifies which provisions of the Navajo Nation Operating Permit Regulations (NNOPR) are to be incorporated into the permit.

Therefore, the second sentence of the first paragraph of the transmittal letter after Action/Status should be revised so that the language is consistent with that VCA provision, as follows:

In accordance with the provisions of Title V of the Clean Air Act, 40 CFR Part 71, Navajo Nation Operating Permit Regulations §§ 404, 405 (c)-(e) and Subpart VI, and all other applicable rules and regulations, the Permittee, Navajo Generating Station, is authorized to operate air emission units and to conduct other air pollutant-emitting activities in accordance with the permit conditions listed in this permit.

Similarly, the reference to the Navajo Nation Clean Air Act without any limitation in the second paragraph after Action/Status is inconsistent with the VCA and should be deleted from this Part 71 permit, which implements federal requirements.

Section 9.6 of the VCA provides as follows:

Citizen suits may be commenced or maintained in federal court as authorized under Section 304 of the Clean Air Act to enforce any permit issued pursuant to this Agreement. . . . The Navajo Nation EPA shall not incorporate into any permit offered to an Operating Agent under this Agreement either Section 306 of the Navajo Nation Clean Air Act, 4 N.N.C. § 1156, or any other provision allowing suits in tribal court by third parties against the Operating Agent.

To be consistent with the VCA, the second sentence of the second full paragraph after Action/Status should therefore be deleted.

Response to Comment 1:

NNEPA agrees that more specificity is desirable regarding the rules and agreements that establish NNEPA's authority to issue the permit. The language of the first paragraph on the cover page has been revised to clarify that this permit is being issued pursuant to the Title V Operating Permit rules, the delegation agreements with U.S. EPA, and certain portions of the Navajo Nation operating permit regulations, as follows:

...

~~This permit is being issued and administered by the Navajo Nation EPA ("NNEPA") pursuant to the Delegation Agreement between EPA Region IX and NNEPA, dated October 15, 2004. In accordance with the provisions of Title V of the Clean Air Act; 40 CFR Part 71; Navajo Nation Operating Permit Regulations §§ 404, 405(c)-(e), and subpart VI; 2004 Delegation Agreement § VI(1) and (7); 2006 Supplemental Delegation Agreement;~~ and all other applicable rules and regulations, the Permittee, Navajo Generating Station, is authorized to operate air emission units and to conduct other air pollutant-emitting activities in accordance with the permit conditions listed in this permit.

...

NNEPA also is clarifying the enforcement language in the second paragraph of the cover page, as follows:

...

Terms and conditions not otherwise defined in this permit have the same meaning as assigned to them in the referenced regulations. All terms and conditions of the permit are enforceable **under the Clean Air Act by NNEPA and by U.S. EPA**, as well as by persons; as defined in the Clean Air Act, **and by NNEPA only as provided in the VCA**, ~~under either or both the Navajo Nation Clean Air Act and the Clean Air Act, as applicable. If all proposed control measures and/or equipment are not installed and/or properly operated and maintained, this will be considered a violation of the permit.~~

...

NNEPA is not deleting the second sentence in the second paragraph. VCA §9.6 prohibits NNEPA from providing for citizen suits or other actions in tribal court. Nothing in the second sentence provides for suits to be brought in tribal court.

In addition, a change has been made to the heading of Condition IV.S. so that it does not appear to imply that NNEPA is issuing this permit under the authority of the VCA instead of the authorities listed in the revised permit language quoted above. Although the VCA provides the conditions for NNEPA to issue permits for NGS, it does not provide NNEPA with the authority to do so:

IV.S. ~~Part 71 Permit Issuance~~ Additional Permit Conditions [Voluntary Compliance Agreement, Article 6]

Comment 2:

Condition I - Source Identification in the draft permit: Change the company contact name from "Robert Candelaria" to "Paul Ostapuk" and the corresponding phone number should be changed to "(928) 645-6577".

Response to Comment 2:

The requested change has been made to Condition I.

Comment 3:

Condition II.A - Acid Rain Requirements in the draft permit: The acid rain permit is being issued by the U.S. EPA since the Navajo Nation EPA has not sought primacy for

acid rain. As such, the following sentence should be added to Section II.A to indicate that this requirement is only federally enforceable:

The acid rain permit renewal and the acid rain permit application are subject to enforcement only by EPA. Violations of the acid rain permit will not be violations of this permit.

Response to Comment 3:

Although U.S. EPA is issuing the acid rain permit, the requirements of the acid rain permit are "applicable requirements" under Part 71, see 40 C.F.R. § 71.2, and so are enforceable through the Part 71 permit. Whether NNEPA has primacy for the acid rain program is irrelevant; for example, provisions of a FIP are applicable requirements enforceable through the Part 71 permit even though the FIP is promulgated by EPA and not by NNEPA.

In addition, Section VI of the 2004 Delegation Agreement, made applicable to NGS and Four Corners by the 2006 Supplemental Delegation Agreement, provides for NNEPA enforcement (up to the filing of a complaint or administrative order) for all "Part 71 sources," as defined in 40 C.F.R. § 71.3(a), and this term includes affected sources under the acid rain program.

Thus, NNEPA is responsible for enforcement (as provided in the Delegation Agreement and the VCA) of the acid rain permit requirements, and the proposed language will not be added to the permit.

Comment 4:

Condition II.B.9 - Maintenance Scheduling in the draft permit: Change the reference from the "Western States Coordinating Council" to the "Western Electric Coordinating Council."

Response to Comment 4:

The requested change has been made to Condition II.B.9.

Comment 5:

Condition II.E.1 - Monitoring and Testing Requirements in the draft permit: The last sentence of this paragraph should be revised to account for EPA observations since this requirement is based on a federal rule, as follows:

... All observations of visible emissions by the permittee, US EPA, or NNEPA shall count toward the 12 month total...

Response to Comment 5:

The requested change has been made to Condition II.E.1.

Comment 6:

Condition III.D - Stratospheric Ozone and Climate Protection in the draft permit: The reference to "Climate Protection" should be removed from the title of this section since the cited regulation (i.e., 40 CFR §82) only applies to stratospheric ozone.

Response to Comment 6:

The title for Condition III.D has been revised to "Protection of Stratospheric Ozone".

Comment 7:

Condition IV.A - Fee Payment in the draft permit: This section should also include a reference to 40 CER § 71.9, which is an applicable federal requirement.

Response to Comment 7:

Condition IV.A has been revised as requested.

Comment 8:

Condition IV.A.2 - Fee Payment in the draft permit: The first sentence of this paragraph should be revised so that the submittal deadline is consistent with Condition IV.A.1.a, as follows:

The permittee shall submit a fee calculation worksheet form with the annual permit fee by ~~September~~ **April** 1 of each year.

Response to Comment 8:

The requested change has been made to Condition IV.A.2.

Comment 9:

Condition IV.A.4.a(1) - Fee Payment in the draft permit: This paragraph was prematurely cut off. Please add the missing language, as follows:

"Actual emissions" means the actual rate of emissions in tpy of any regulated pollutant (for fee calculation) emitted from a part 71 source over the preceding calendar year. Actual emissions shall be calculated using each emission unit's actual operating hours, production rates, in-place control equipment, and types of **materials processed, stored, or combusted during the preceding calendar year [40 CFR §71.6(a)(7) and §71.9(c)(6)].**"

Response to Comment 9:

Condition IV.A.4.a(1) has been revised as requested.

Comment 10:

Condition IV.A.4.a - Fee Payment of the draft permit: Please add the following paragraphs to this section since they are requirements that apply to NGS. SRP is proposing a date of March 1st as the date that NNEPA will make the fee amount available each year. This date still provides NGS one month to complete the fee calculation worksheet before fee payment is due.

- (2) *Actual emissions shall be computed using methods required by the permit for determining compliance, such as monitoring or source testing data [40 CFR § 71.6(a)(7) and § 71.9(e)(2)].*
- (3) *If actual emissions cannot be determined using the compliance methods in the permit, the permittee shall use other federally recognized procedures [40 CFR § 71.6(a)(7) and § 71.9(e)(2)].*
- (4) *The term "regulated pollutant" (for fee calculation) is defined in NNOPR Subpart I § 102.50.*
- (5) *The permittee should note that the presumptive fee amount is revised each year to account for inflation, and it is available from NNEPA starting on March 1 of each year.*
- (6) *The total annual fee due shall be the greater of the applicable minimum fee and the sum of subtotal annual fees for all pollutants emitted from the source. [NNOPR Subpart VI § 602(B)(2)]*

Response to Comment 10:

NNEPA has reviewed the fee payment provisions in Condition IV.A of the permit. The 2004 Delegation Agreement, made applicable to NGS by the 2006 Supplemental Delegation Agreement, provides that NNEPA will collect permit fees "in a manner consistent with Subpart VI of the Navajo Operating Permit Regulations." 2004 Delegation Agreement § II(1). It provides further that EPA is waiving fees "in light of EPA's determination that the NNEPA has enacted laws and promulgated rules that, by their terms, adequately authorize NNEPA to collect fee revenue and that such fee revenue will be sufficient to administer the delegated Part 71 Program." Id. at § II(2).

The VCA § 5.4.3 similarly provides that "the Navajo Nation will incorporate into the Part 71 permit the following provisions identified in Section 5.4.1 (Existing USEPA Permit): . . . (b) provisions of Subpart VI of the Navajo Nation Operating Permit Rule regarding the

collection of annual permit fees.” VCA § 5.4.1(d) required NNEPA to modify the existing EPA permit “to incorporate the provisions of Subpart VI of the Navajo Nation Operating Permit Rule.”

NNEPA therefore is revising Condition IV.A.4 to incorporate the provisions of NNOPR Subpart VI, § 602(A) and (B). NNOPR § 602 uses several terms that either are not included in the federal regulations or are defined differently in the federal regulations: “actual emissions,” “fee pollutant,” and “regulated air pollutant.” These terms are defined in NNOPR Subpart I, § 102(5), (24), and (50). NNEPA interprets the provisions of the Delegation Agreement and VCA, which incorporate NNOPR Subpart VI, to include incorporation of these definitions by reference.

It also is necessary to incorporate the NNOPR definitions in order to prevent the fee calculation provision in the permit from being more stringent than the federal fee calculation. For example, the NNOPR provides for the 4,000 TPY emissions cap in its definition of “fee pollutant,” which is referenced in its definition of “actual emissions,” and not in the fee calculation provision itself. By using the NNOPR fee calculation provision in Subpart VI but not incorporating the NNOPR definitions of “fee pollutant” and “actual emissions” in Subpart I, there would be no cap on fee payments. Moreover, the NNOPR excludes insignificant emissions from the calculation of fees through the definitions of “fee pollutant” and “actual emissions” rather than in the fee calculation provision.

At the same time, the definition of “regulated air pollutant” under the NNOPR could be broader than the corresponding definition in the federal regulations, because it could incorporate Navajo NSPS or HAPs that are not included pursuant to federal regulations. Since this result would be contrary to the intent of the VCA, NNEPA is modifying the definition of “regulated air pollutant” for purposes of this permit only so that it is equivalent to the federal definition.

Therefore, Condition IV.A.4.a has been revised as follows:

IV.A. Fee Payment [NNOPR Subpart VI] [40 CFR § 71.6(a)(7) and §71.9]

1.

c. The permittee shall send **the** fee payment to:

....

4. Basis for calculating annual fee:

a. The annual emissions fee shall be calculated by multiplying the total tons of actual emissions of all ~~regulated fee~~ pollutants ~~(for fee calculation)~~ emitted from the source by the ~~presumptive~~ **applicable** emissions fee (in dollars/ton) in effect at the time of calculation. Emissions of any regulated air pollutant that already are

included in the fee calculation under a category of regulated pollutant, such as a federally listed hazardous air pollutant that is already accounted for as a VOC or as PM10, shall be counted only once in determining the source's actual emissions. [40 CFR § 71.6(a)(7) and § 71.9(e)(1)] [NNOPR Subpart VI §§ 602(A) and (B)(1)]

- (1)a. "Actual emissions" means the actual rate of emissions in tpy of any ~~regulated fee pollutant (for fee calculation)~~ emitted from a part 71 source over the preceding calendar year. Actual emissions shall be calculated using each emissions unit's actual operating hours, production rates, in-place control equipment, and types of materials processed, stored, or combusted during the preceding calendar year. **Actual emissions shall not include emissions of any one fee pollutant in excess of 4,000 TPY, or any emissions that come from insignificant activities** [40 CFR § 71.6(a)(7) and § 71.9(e)(6) NNOPR Subpart I § 102(5)].
- b. **Actual emissions shall be computed using methods required by the permit for determining compliance, such as monitoring or source testing data** [40 CFR § 71.6(a)(7) and § 71.9(e)(2)].
- c. **If actual emissions cannot be determined using the compliance methods in the permit, the permittee shall use other federally recognized procedures** [40 CFR § 71.6(a)(7) and § 71.9(e)(2)].
- d. **The term "fee pollutant" is defined in NNOPR Subpart I § 102(24).**
- e. **The term "regulated air pollutant" is defined in NNOPR Subpart I § 102(50), except that for purposes of this permit the term does not include any pollutant that is regulated solely pursuant to 4 N.N.C. § 1121 nor does it include any hazardous air pollutant designated by the Director pursuant to 4 N.N.C. § 1126(B).**
- f. **The permittee should note that the applicable fee is revised each year to account for inflation, and it is available from NNEPA starting on March 1 of each year.**
- g. **The total annual fee due shall be the greater of the applicable minimum fee and the sum of subtotal annual fees for all fee pollutants emitted from the source. [NNOPR Subpart VI § 602(B)(2)]**
- b. ~~The permittee shall exclude the following emissions from the calculation of fees: [40 CFR § 71.6(a)(7) and § 71.9(e)(5)]~~
 - (1) ~~The amount of actual emissions of each regulated pollutant (for fee calculation) that the source emits in excess of 4,000 tons per year;~~

- (2) ~~Actual emissions of any regulated pollutant (for fee calculation) already included in the fee calculation; and~~
- (3) ~~The insignificant quantities of actual emissions not required to be listed or calculated in a permit application pursuant to 40 CFR § 71.5(e)(11).~~

Comment 11:

Condition IV.H.4.b - Administrative Permit Amendments in the draft permit: The reference to NNOPR § 301(D)(2) is not one of the sections authorized for inclusion under the VCA. Therefore, this requirement should be revised, as follows:

The new owners have submitted the application information required by NNOPR § 301(D)(2) **405(C)**;

Response to Comment 11:

In order match the language in 40 CFR 71.7(d)(1)(iv), Condition IV.H.4.b has been removed from the permit and Condition IV.H.4 has been revised. The revisions to Condition IV.H.4 are indicated following the Response to Comment 27, in the list of additional changes that NNEPA has made to the permit (see item 4 on the list).

Comment 12:

Condition IV.K.3 - Significant Permit Modifications in the draft permit: Capitalize the first word of the paragraph.

Response to Comment 12:

"The" has been added to the first paragraph of Condition IV.K.3.

Comment 13:

Condition IV.R.1.c - Permit Expiration and Renewal in the draft permit: There is a spelling error in this paragraph - "reatment" should be "treatment."

Response to Comment 13:

The requested correction has been made to Condition IV.R.1.c.

Comment 14:

Section 1.b - Contact Information in the draft Statement of Basis (SoB): Change the facility contact name from "Robert Candelaria" to "Paul Ostapuk" and the corresponding phone number should be changed to "(928) 645-6577."

Response to Comment 14:

The requested changes have been made to Section 1.b of the SoB.

Comment 15:

Section 1.d - History in the draft SoB: Use of "Electro Static Precipitators" in the second paragraph should be corrected to read "Electrostatic Precipitators."

Response to Comment 15:

The requested change has been made to Section 1.d of the SoB.

Comment 16:

Section 1.1 - Potential to Emit after Issuance in the draft SoB: Change the NOx emissions value for the auxiliary boilers provided in the table from "441" to "442."

Response to Comment 16:

The requested change has been made to Section 1.1 of the SoB.

Comment 17:

Section 4(b)(3) - Federal Rule Applicability in the draft SoB: This paragraph and its associated table should be revised to remove all references to emission limits for calendar years 2000 through 2007 now that the permit will be issued in 2008.

Response to Comment 17:

The requested changes have been made to Section 4(b)(3) of the SoB and the associated table.

Comment 18:

Section 4(c) - Federal Rule Applicability in the draft SoB: On February 8, 2008, the U.S. Court of Appeals for the District of Columbia Circuit issued a decision that vacates the Clean Air Mercury Rule. As such, this entire section of the document should be removed.

Response to Comment 18:

The discussion in Section 4(c) of the SoB has been revised to reflect that the CAMR has been vacated.

Comment 19:

Section 4(r) - Federal Rule Applicability in the draft SoB: For the reason stated above, the reference to the Clean Air Mercury Rule should be removed from the table entitled: "Summary of Applicable Federal Requirements".

Response to Comment 19:

The requested change was made to Section 4(r) of the SoB.

Comment 20:

Section 9.a - Public Participation in the draft SoB: Revise the first paragraph of this section to remove references to Subpart IV of the Navajo Nation Operating Permit Regulations, as these regulations are not applicable per the Voluntary Compliance Agreement.

Response to Comment 20:

The references to NNOPR Subpart IV in Section 9.a of the draft SoB were deleted because they were references to the public comment provisions of the NNOPR, which are not applicable under the VCA.

Comments from U.S. EPA (Comments 21 through 27)

Comment 21:

Since the acid rain permit renewal that U.S. EPA will issue contains the facility's acid rain renewal application, Attachment B is not necessary. U.S. EPA recommends that NNEPA delete Attachment B from the permit. For the same reason, Condition II.A. should be revised to remove this language: "and the acid rain permit application (see Attachment B)."

Response to Comment 21:

Attachment B has been removed from the permit and Condition II.B has been revised as requested.

Comment 22:

Condition III.C.3. requires the permittee to report certain types of deviations to NNEPA by telephone, facsimile, or electronic mail. NNEPA should revise this condition to require that these deviations be reported to both NNEPA and U.S. EPA. The e-mail address for reporting to EPA is r9.aeo@epa.gov.

Response to Comment 22:

The requested changes have been made to Condition III.C.3.

Comment 23:

Since the facility is not voluntarily accepting any limits on its potential to emit (PTE) in this permit, its PTE will be the same before and after permit issuance. For greater clarity, we recommend that NNEPA delete the phrase "after issuance" in the heading "Potential to Emit after Issuance" in section 1.1 of the SoB.

Response to Comment 23:

Section 1.1 of the SoB has been revised as requested.

Comment 24:

Section(c) on page 12 of the SoB states that "fugitive emissions from this source are counted toward determinations associated with PSD review." Since the facility is currently a major source under the Prevention of Significant Deterioration program due to its PTE of criteria pollutants, and the facility is not making a physical change or a change in its method of operation, there is no need to address how fugitive emissions are evaluated for PSD applicability purposes. For greater clarity, U.S. EPA recommends deleting section (c).

Response to Comment 24:

Section 1.1(c) has been removed from the SoB as a result of this comment.

Comment 25:

The last two sentences of Section 3 of the SoB are misleading because they give the impression that NNEPA is currently making a PSD applicability determination for modifications the facility made in the past. In addition, PSD is triggered at an existing major source by a "significant" emission increase, as that term is defined in 40 C.F.R. 52.21, not by having a "potential to emit greater than the significant modification thresholds." For these reasons, and since the facility is not currently making a physical change or a change in its method of operation, the SoB language should be revised. U.S. EPA suggests the following changes:

The modifications that commenced in 1997 did not result in an emission increase above the significant modification thresholds in 40 CFR 52.21. Therefore, the modifications that commenced in 1997 ~~were not subject to the requirements of~~ did not trigger PSD.

Response to Comment 25:

NNEPA has discussed this comment with U.S. EPA, which after further consideration, indicated that they recommended simply deleting the two sentences from the statement of basis. NNEPA agrees and has made this change.

Comment 26:

The description of Compliance Assurance Monitoring (CAM) applicability for PM/PM10 emissions from the limestone handling operations controlled by baghouses in section (n) on page 17 of the SoB should be revised. First, CAM applicability is based on an emission unit's pre-control PTE, not the PTE. The discussion should state that the pre-control PTE of baghouse DC-11 is less than the major source threshold, and that therefore DC-11 is not subject to CAM. The discussion should also state that the other two baghouses, DC-9 and DC-10, are used to control PM/PM10 emissions from truck dumping, an activity that is not subject to any emission limit from New Source Performance Standard (NSPS) Subpart OOO or any other applicable requirement, and therefore they are not subject to CAM.

Response to Comment 26:

NNEPA has made the proposed changes to Section 4(n) of the SoB. In addition, the discussion about the CAM exemptions for SO₂ and NO_x emissions from the existing boilers U1 through U3 has been revised.

Comment 27:

U.S. EPA stated that NSPS Subpart OOO should be listed in the table of applicable requirements on page 18 of the SoB.

Response to Comment 27:

The requested change has been made to the SoB.

Upon further review, NNEPA has decided to make the following additional changes to the permit:

1. For clarification purposes, Condition II.F.1.b has been revised. In addition, the provisions of II.F.1.c are not contained in any applicable federal requirements and so this paragraph has been deleted from the permit. Condition II.F.1 now reads as follows:

II.F. Operational Flexibility

1. **Clean Air Act Section 502(b)(10) Changes** [40 CFR § 71.6(a)(13)(i)] [NNOPR § 404(A)]

- ...
- b. For each proposed § 502(b)(10) change, the permittee shall provide written notification to the Director and the Administrator at least 7 days in advance of the proposed change. Such notice shall state when the change will occur and shall describe the change, any resulting emissions change, and ~~the inapplicability of any permit term or condition~~ **any permit terms or conditions made inapplicable as a result of the change**. The permittee shall attach each notice to its copy of this permit.
 - c. ~~If the proposed change and the notice is sufficient, the permittee is not required to comply with the permit terms and conditions it has identified that restrict the change. If the change is determined not to qualify and/or the notice is not sufficient, the original terms of the permit remain fully enforceable.~~
 - dc. Any permit shield provided in this permit shall not apply to any change made under this provision.

2. The following changes have been made to Condition III.A - Testing Requirements, to provide consistency with the changes made to the Part 71 Renewal Permit for Four Corners Steam Electric Station (Permit # NN-ROP-05-07):

III.A. Testing Requirements [40 CFR § 71.6(a)(3)]

- ...
- 3. Only regular operating staff may adjust the processes or emission control device parameters **within two (2) hours before or during a compliance source test. All adjustments must be logged and a copy of the log submitted with the test report.** No adjustments are to be made within two (2) hours ~~before~~ of the start of the tests ~~or. Any operating adjustments made during a source test, if those adjustments that are a result of consultation~~ **before or during the tests with source testing personnel, equipment vendors, or consultants. Such adjustments may render the source test invalid.**
 - 4. During each test run and for two (2) hours prior to the test and two (2) hours after the completion of the test, the permittee shall record the following information:
 - a. ~~Fuel characteristics and/or amount of product processed (if applicable).~~
 - ba. Visible emissions.
 - eb. All parametric data which is required to be monitored in Section II for the emission unit being tested.

- d. ~~Other source specific data identified in Section II such as minimum test length (e.g., one hour, 8 hours, 24 hours, etc.), minimum sample volume, other operating conditions to be monitored, correction of O₂, etc.~~

...

3. Condition IV.C.1 (Compliance Certifications) states that compliance certifications should be submitted "consistent with Section IV.E of this permit." Since Condition IV.E. merely provides contact information for submittals, this reference has been replaced by the reporting requirements in III.C.4. Therefore, Condition IV.C.1 has been revised as follows:

IV.C. Compliance Certifications [40 CFR § 71.6(c)(5)]

1. The permittee shall submit to NNEPA and US EPA Region 9 a certification of compliance with permit terms and conditions, including emission limitations, standards, or work practices, postmarked by January 30 of each year and covering the previous calendar year. The compliance certification shall be certified as to truth, accuracy, and completeness by the permit-designated responsible official consistent with ~~Section IV.E.~~**III.C.4** of this permit [40 CFR § 71.6(c)(5)].

...

4. Condition IV.H.4 has been revised as follows to match the language in 40 CFR 71.7(d)(1)(iv):

IV.H Administrative Permit Amendments [40 CFR § 71.7(d)] [NNOPR § 405(C)]

...

4. Allows for a change in ownership or operational control of a source where the NNEPA determines that no other change in the permit is necessary, provided that:
- a. ~~A~~ a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the NNEPA;
 - b. ~~The new owners have submitted the application information required in NNOPR § 301(D)(2);~~
 - c. ~~No grounds exist for permit reopening, revocation and reissuance, or termination pursuant to NNOPR § 406; and~~

- d. ~~The permittee has published a public notice of the change in ownership of the source in a newspaper of general circulation in the area where the source is located.~~

5. NNEPA has revised the language in Condition IV.T.2 as follows to reflect the precise provisions of 40 CFR 71.12:

IV.T. Part 71 Permit Enforcement [Voluntary Compliance Agreement, Section 5.4.5; 40 CFR § 71.12]

2. ~~U.S. EPA retains authority under Clean Air Act 113 for all enforcement-related activities, without limitation~~ **Violations of any applicable requirement; any permit term or condition; any fee or filing requirement; any duty to allow or carry out inspection, entry, or monitoring activities; or any regulation or order issued by the permitting authority pursuant to this part are violations of the Act and are subject to full Federal enforcement authorities available under the Act.**



Navajo Nation Environmental Protection Agency
Navajo Nation Operating Permit Program

Salt River Project (SRP)
Navajo Generating Station

No. NN-ROP-05-06

Permit Reopening: 2011

Navajo Generating Station

Title V Permit Reopening

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THE NAVAJO NATION



BEN SHELLY PRESIDENT
REX LEE JIM VICE PRESIDENT

Navajo Nation Environmental Protection Agency – Office of the Executive Director
Post Office Box 339, Window Rock, AZ 86515 • Bldg # 2695 Window Rock Blvd
Telephone (928) 871-7692, Fax (928) 871-7996
www.navajonationepa.org

TITLE V PERMIT REOPENING

<u>PERMIT #:</u>	<u>FACILITY NAME:</u>	<u>LOCATION:</u>	<u>COUNTY:</u>	<u>STATE:</u>
NN-ROP-05-06	NAVAJO GENERATING STATION	PAGE	COCONINO	AZ
<u>ISSUE DATE:</u>	<u>EXPIRATION DATE:</u>	<u>AFS PLANT ID:</u>	<u>PERMITTING AUTHORITY:</u>	
07/03/2008	07/03/2013	04-005-N0423	NNEPA	

ACTION/STATUS: PART 71 OPERATING PERMIT REOPENING

Robert K. Talbot, Plant Manager
Navajo Generating Station
P.O. Box 850
Page, Arizona 86040
(928) 645-6217

Re: Title V Operating Permit Reopen for Navajo Generating Station

Dear Mr. Talbot:

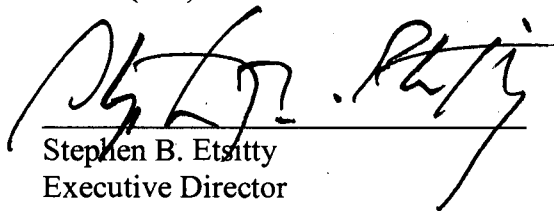
NNEPA reopened the Title V permit NN-ROP-05-06 to incorporate two separate applicable requirements into the existing permit: Conditions II.A, Federal Implementation Plan Requirements, and II.C, CAM Requirements. Also, the language of Condition IV.C has been modified to account for the CAM Requirements. These are the only portions of the permit affected by this permit reopen. A revised Table of Contents is attached for clarification. NNEPA has used this opportunity to add Condition II.B, PSD Requirements, as an Administrative Amendment pursuant to NNOPR § 405(C) and 40 C.F.R. § 71.7(d).

The federal operating permit program provides for a permit reopening for cause in certain circumstances. One of the circumstances requiring reopening, as described in 40 C.F.R. § 71.7(f)(1)(i), NNOPR § 406 and Condition IV.L of the existing permit, is if "Additional applicable requirements under the Act become applicable to a major Part 71 source with a remaining permit term of 3 or more years." On May 11, 2010, NNEPA provided a notice of intent to reopen the NGS Title V Permit (NN-ROP-05-06) to add the FIP and CAM requirements.

We have enclosed the Title V Permit Reopening and the accompanying Statement of Basis with a clear understanding that the changes made in the permit will not affect the permit terms that became effective July 03, 2008 and expire on July 3, 2013. If you have any questions regarding this matter, please contact Charlene Nelson at (928) 729-4247 or charlenenelson@navajonnsn.gov.

OCT 28 2011

Date


Stephen B. Etsitty
Executive Director

Navajo Nation Environmental Protection Agency

THE NAVAJO NATION



BEN SHELLY PRESIDENT
REX LEE JIM VICE PRESIDENT

Navajo Nation Environmental Protection Agency – Air Quality Control/Operating Permit Program
Post Office Box 529, Fort Defiance, AZ 86504 • Rt.112 North, Bldg # 2837
Telephone (928) 729-4096, Fax (928) 729-4313

TITLE V PERMIT REOPENING

<u>PERMIT #:</u>	<u>FACILITY NAME:</u>	<u>LOCATION:</u>	<u>COUNTY:</u>	<u>STATE:</u>
NN-R0P-05-06	NAVAJO GENERATING STATION	PAGE	COCONINO	AZ
<u>ISSUE DATE:</u>	<u>EXPIRATION DATE:</u>	<u>AFS PLANT ID:</u>	<u>PERMITTING AUTHORITY:</u>	
07/03/2008	07/03/2013	04-005-N0423	NNEPA	

ACTION/STATUS: PART 71 OPERATING PERMIT REOPENING

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Abbreviations and Acronyms

Administrator	Administrator of the U.S. EPA
AR	Acid Rain
ARP	Acid Rain Program
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
COFA	Close-Coupled Overfire Air
COMS	Continuous Opacity Monitoring System
DC	Dust Collector
EIP	Economic Incentives Program
ESP	Electro Static Precipitator
FGD	Flue Gas Desulfurization
gal	gallon
HAP	Hazardous Air Pollutant
hr	hour
Id. No.	Identification Number
kg	kilogram
lb	pound
MACT	Maximum Achievable Control Technology
MVAC	Motor Vehicle Air Conditioner
Mg	megagram
MMBtu	million British Thermal Units
MW	Megawatts
mo	month
NESHAP	National Emission Standards for Hazardous Air Pollutants
NNEPA	Navajo Nation Environmental Protection Agency
NNOPR	Navajo Nation Operating Permit Regulations
NO _x	Nitrogen Oxides
NSPS	New Source Performance Standards
NSR	New Source Review
PM	Particulate Matter
PM-10	Particulate matter less than 10 microns in diameter
ppm	parts per million
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
psia	pounds per square inch absolute
RMP	Risk Management Plan
SNAP	Significant New Alternatives Program
SO ₂	Sulfur Dioxide
TSP	Total Suspended Particulate
US EPA	United States Environmental Protection Agency
VCA	Voluntary Compliance Agreement
VOC	Volatile Organic Compounds

I. Source Identification

- Managing Participant Name: Salt River Project Agricultural Improvement and Power District (SRP)*
- Managing Participant Mailing Address: P.O. Box 52025, PAB 352
Phoenix, Arizona 85072-2025

*Note: This facility is co-owned by 6 entities. SRP is listed as the managing participant in this permit since they act as the facility operator, and have accepted the responsibility to obtain environmental permits for Navajo Generating Station, including an Acid Rain permit and Part 71 Permit. In addition to SRP, the other 5 co-owners of this facility are:

1. Los Angeles Department of Water and Power (LADWP)
2. Arizona Public Service Company (APS)
3. Tucson Electric Power (TEP)
4. Nevada Power Company (NPC)
5. U.S. Bureau of Reclamation (USBR)

- Plant Name: Navajo Generating Station
- Plant Location: 5 miles east of Page, AZ off U.S. Highway 98
Page, Arizona
- County: Coconino, Arizona
- EPA Region: 9
- Reservation: Navajo Nation
- Tribe: Navajo
- Company Contact: Paul Ostapuk Phone: (928) 645-6577
- Responsible Official: Robert K. Talbot Phone: (928) 645-6217
- EPA Contact: Roger Kohn Phone: (415) 972-3973
- Tribal Contacts: Eugenia Quintana Phone: (928) 871-7800
Charlene Nelson Phone: (928) 729-4247
- SIC Code: 4911
- AFS Plant Identification Number: 04-005-N0423
- Description of Process: The facility is 2,250 Net Megawatts coal fired power plant.
- Significant Emission Units:

Unit ID/ Stack ID	Unit Description	Maximum Capacity	Commenced Construction Date	Control Method
U1/ Stack S1	One (1) pulverized coal-fired boiler, using No. 2 fuel oil for ignition fuel. Stack S1 is equipped with SO ₂ , CO, and NO _x CEMS, and a COMS.	7,725 MMBtu/hr; 750 Net MW	1970	LNB/SOFA (2011); FGD system SCBR1 (1999); ESP1

U2/ Stack S2	One (1) pulverized coal-fired boiler, using No. 2 fuel oil for ignition fuel. Stack S2 is equipped with SO ₂ , CO, and NO _x CEMS, and a COMS.	7,725 MMBtu/hr; 750 Net MW	1970	LNB/SOFA (2010); FGD system SCBR2 (1998); ESP2
U3/ Stack S3	One (1) pulverized coal-fired boiler, using No. 2 fuel oil for ignition fuel. Stack S3 is equipped with SO ₂ , CO, and NO _x CEMS, and a COMS.	7,725 MMBtu/hr; 750 Net MW	1970	LNB/SOFA (2009); FGD system SCBR3 (1997); ESP3
AUX A	One (1) auxiliary boiler; using No. 2 fuel oil as fuel	308 MMBtu/hr	1970	N/A
AUX B	One (1) auxiliary boiler; using No. 2 fuel oil as fuel	308 MMBtu/hr	1970	N/A
Coal Handling Operations				
CT1	One (1) railcar unloading operation	10,000 tons/hr	1970	N/A
L1 - L12	Twelve (12) hopper feeders	2,400 tons/hr (total)	1970	N/A
BC-1 through BC-4	Four (4) conveyors to the yard surge bin	1,800 tons/hr (each)	1970	DC-8
BC-4A	One (1) conveyor to the batch weight system	100 tons/hr	1970	DC-8
BFD-5A, BC-5	Two (2) reclaim conveyors	1,800 tons/hr (each)	1970	DC-8
BC-6	One (1) conveyor to the yard surge bin	1,500 tons/hr	1970	DC-8
BC-6A through BC-6C	Three (3) conveyors to the stacker/reclaimer	1,800 tons/hr (each)	1970	N/A
BC-7	One (1) conveyor to the emergency reclaim hopper	1,500 tons/hr	1970	N/A
YSB-1	One (1) yard surge bin	1,800 tons/hr	1970	DC-8
BC-8A BC-8B	Two (2) conveyors to plant surge bin	1,500 tons/hr (each)	1970	DC-8
PSB-1	One (1) plant surge bin	3,000 tons/hr	1970	DC-5
BC-9A BC-9B	Two (2) conveyors to the coal silos for boilers U1 and U2	1,500 tons/hr (each)	1970	DC-5
BC-10A BC-10B	Two (2) conveyors to the coal silos for boiler U3	1,500 tons/hr (each)	1970	DC-5
CC-1A through CC-9A; CC-1B through CC-9B	Three (3) enclosed cascading conveying systems to the coal storage silos for boilers U1, U2, and U3	1,500 tons/hr (each)	1970	DC-1 through DC-4, DC-6, and DC-7
Silos 1A through 1G	Seven (7) storage silos for boiler U1	3,000 tons/hr (each)	1970	DC-1, DC-2, and baghouse PR-1.
Silos 2A through 2G	Seven (7) storage silos for boiler U2	3,000 tons/hr (each)	1970	DC-3, DC-4, and baghouse PR-2.
Silos 3A through 3G	Seven (7) storage silos for boiler U3	3,000 tons/hr (each)	1970	DC-6, DC-7, and baghouse PR-3.
CS	Outdoor coal storage piles	3,300 tons/hr (total)	1970	water suppression
Limestone handling system associated with the FGD systems				

Unloading Bay A and B	Two (2) truck unloading operations	38 tons/hr (each)	1997	N/A
O-LSH-HOP-A	One (1) limestone unloading hopper	300 tons/hr	1997	DC-9
O-LSH-HOP-B	One (1) limestone unloading hopper	300 tons/hr	1997	DC-10
O-LSH-FDR-A	One (1) conveyor	300 tons/hr	1997	DC-9
O-LSH-FDR-B	One (1) conveyor	300 tons/hr	1997	DC-10
O-LSH-CNV-A	One (1) conveyor	300 tons/hr	1997	DC-9
O-LSH-CNV-B	One (1) conveyor	300 tons/hr	1997	DC-10
O-LSH-SILO-A and B	Two (2) limestone storage silos	300 tons/hr (each)	1997	DC-11
O-LSP-FDR-A and B	Two (2) enclosed feeders to the slurry preparation system	36 tons/hr (each)	1997	N/A
O-LSP-CNV-A and B	Two (2) enclosed cleanout conveyors	5 tons/hr (each)	1997	N/A
O-LSP-MILL-A and B	Two (2) ball mills	36 tons/hr (each)	1997	N/A
LS	Limestone storage piles	600 tons/hr (total)	1997	water suppression
Fly ash handling system				
Silo 1	One (1) fly ash bin for boilers U1 and U2	46 tons/hr	1970	DC-TD and DC-S1/2
Silo 2	One (1) fly ash bin for boiler U3	46 tons/hr	1970	DC-S3
Silo 1 and 2 Loading	Two (2) partially enclosed fly ash truck loading operations	38 tons/hr (each)	1970	N/A
DWB-A through DWB-F	Six (6) bottom ash truck loading operations. The bottom ash is processed in a wet form	46 tons/hr (each)	1970	N/A
Soda ash/lime handling systems				
SAB-1A, SAB-2A, SAB-1B, SAB-2B	Four (4) soda ash storage bins	0.4 tons/hr (each)	1970	dust collector BH-6
LB-1 and LB-2	Two (2) lime storage bins	0.57 tons/hr (each)	1970	dust collector BH-7
Miscellaneous Operations				
	Six (6) cooling towers	813,000 gal/min (total)	1970	N/A
TR	Fugitive emissions from unpaved roads	N/A	1970	water suppression

Note: LNB : Low-NO_x Burner, SOFA: Separated Over-fire Air.

II. Requirements for Specific Units

II.A. Federal Implementation Plan Requirements. The following requirements apply to Units 1, 2, and 3, coal and ash handling equipment, and the two auxiliary steam boilers at Navajo Generating Station. [40 CFR § 49.5513]

1. **Definitions.** The following definitions apply to Section II.A of this permit [40 CFR § 49.5513(c)]:
 - a. Absorber upset transition period means the 24-hour period following an upset of an SO₂ absorber module which resulted in the absorber being taken out of service.
 - b. Affirmative defense means, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding. This rule provides an affirmative defense to actions for penalties brought for excess emissions that arise during certain malfunction episodes.
 - c. Malfunction means any sudden and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions. An affirmative defense is not available if during the period of excess emissions, there was an exceedance of the relevant ambient air quality standard that could be attributed to the emitting source.
 - d. Owner or Operator means any person who owns, leases, operates, controls or supervises the NGS, any of the fossil fuel-fired, steam-generating equipment at the NGS, or the auxiliary steam boilers at the NGS.
 - e. Plant-wide means a weighted average of particulate matter and SO₂ emissions for Units 1, 2, and 3 based on the heat input to each unit as determined by 40 CFR part 75.
 - f. Point source means any crusher, any conveyor belt transfer point, any pneumatic material transferring, any baghouse or other control devices used to capture dust emissions from loading and unloading, and any other stationary point of dust that may be observed in conformance with Method 9 of Appendix A-4 of 40 CFR Part 60 (excluding stockpiles).
 - g. Regional Administrator means the Regional Administrator of the Environmental Protection Agency Region 9 or his/her authorized representative.

- h. Startup shall mean the period from start of fires in the boiler with fuel oil, to the time when the electrostatic precipitator is sufficiently heated such that the temperature of the air preheater inlet reaches 400 degrees Fahrenheit and when a unit reaches 300 MW net load. Proper startup procedures shall include energizing the electrostatic precipitator prior to the combustion of coal in the boiler. This rule provides an affirmative defense to actions for penalties brought for excess emissions that arise during startup episodes. An affirmative defense is not available if during the period of excess emissions, there was an exceedance of the relevant ambient air quality standard that could be attributed to the emitting source.
- i. Shutdown shall begin when the unit drops below 300 MW net load with the intent to remove the unit from service. The precipitator shall be maintained in service until boiler fans are disengaged. This rule provides an affirmative defense to actions for penalties brought for excess emissions that arise during shutdown episodes. An affirmative defense is not available if during the period of excess emissions, there was an exceedance of the relevant ambient air quality standard that could be attributed to the emitting source.
- j. Oxides of nitrogen (NO_x) means the sum of nitrogen oxide (NO) and nitrogen dioxide (NO_2) in the flue gas, expressed as nitrogen dioxide.

2. Emissions Limitations and Control Measures [40 CFR § 49.5513(d)]:

- a. Sulfur oxides (SO_2). No owner or operator shall discharge or cause the discharge of sulfur oxides into the atmosphere from Units 1, 2, or 3 in excess of 1.0 pound per million British thermal units (lb/MMBtu) averaged over any three (3) hour period, on a plant-wide basis.
- b. Particulate matter (PM). No owner or operator shall discharge or cause the discharge of particulate matter into the atmosphere in excess of 0.060 lb/MMBtu , on a plant-wide basis, as averaged from at least three sampling runs per stack, each at a minimum of 60 minutes in duration, each collecting a minimum sample of 30 dry standard cubic feet.
- c. Dust. Each owner or operator shall operate and maintain the existing dust suppression methods for controlling dust from the coal handling and storage facilities. Within ninety (90) days after promulgation of these regulations the owner or operator shall submit to the Regional Administrator a description of the dust suppression methods for controlling dust from the coal handling and storage facilities, fly ash handling and storage, and road sweeping activities. Each owner or operator shall not emit dust with an opacity greater than 20% from any crusher, grinding mill, screening operation, belt conveyor, truck loading or unloading operation, or railcar unloading station, as determined using 40 CFR Part 60, Appendix A-4 Method 9.

- d. Opacity. No owner or operator shall discharge or cause the discharge of emissions from the stacks of Units 1, 2, or 3 into the atmosphere exhibiting greater than 20% opacity, excluding condensed uncombined water droplets, averaged over any six (6) minute period and 40% opacity, averaged over six (6) minutes, during absorber upset transition periods.

3. Testing and Monitoring [40 CFR § 49.5513(e)]:

- a. On and after the effective date of this regulation, the owner or operator shall maintain and operate Continuous Emissions Monitoring Systems (CEMS) for NO_x and SO₂ and Continuous Opacity Monitoring Systems (COMS) on Units 1, 2, and 3 in accordance with 40 CFR 60.8 and 60.13(e), (f), and (h), and Appendix B of Part 60. The owner or operator shall comply with the quality assurance procedures for CEMS and COMS found in 40 CFR part 75.
- b. The owner or operator shall conduct annual mass emissions tests for particulate matter on Units 1, 2, and 3, operating at rated capacity, using coal that is representative of that normally used. The tests shall be conducted using the appropriate test methods in 40 CFR Part 60, Appendix A.
- c. During any calendar year in which an auxiliary boiler is operated for 720 hours or more, and at other times as requested by the Administrator, the owner or operator shall conduct mass emissions tests for sulfur dioxide, nitrogen oxides and particulate matter on the auxiliary steam boilers, operating at rated capacity, using oil that is representative of that normally used. The tests shall be conducted using the appropriate test methods in 40 CFR Part 60, Appendix A. For particulate matter, testing shall consist of three test runs. Each test run shall be at least sixty (60) minutes in duration and shall collect a minimum volume of thirty (30) dry standard cubic feet.
- d. The owner or operator shall maintain two sets of opacity filters for each type of COMS, one set to be used as calibration standards and one set to be used as audit standards. At least one set of filters shall be on site at all times.
- e. All emissions testing and monitor evaluation required pursuant to this section shall be conducted in accordance with the appropriate method found in 40 CFR Part 60, Appendices A and B.
- f. The owner or operator shall install, maintain and operate ambient monitors at Glen Canyon Dam for particulate matter (PM_{2.5} and PM₁₀), nitrogen dioxide, sulfur dioxide, and ozone. Operation, calibration and maintenance of the monitors shall be performed in accordance with 40 CFR Part 58, manufacturer's specification, and "Quality Assurance Handbook for Air Pollution Measurements Systems", Volume II, U.S. EPA as applicable to

single station monitors. Data obtained from the monitors shall be reported annually to the Regional Administrator. All particulate matter samplers shall operate at least once every six days, coinciding with the national particulate sampling schedule.

- g. Nothing herein shall limit EPA's ability to ask for a test at any time under section 114 of the Clean Air Act, 42 U.S.C. 7413, and enforce against any violation of the Clean Air Act or this section.
- h. A certified EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 observer shall conduct a weekly visible emission observation for the equipment and activities described under Condition II.A.2.c. If visible emissions are present at any of the equipment and/or activities, a 6-minute EPA Reference Method 9 observation shall be conducted. The name of the observer, date, and time of observation, results of the observations, and any corrective actions taken shall be noted in a log.

4. Reporting and Recordkeeping Requirements [40 CFR § 49.5513(f)]:

Unless otherwise stated all requests, reports, submittals, notifications and other communications to the Regional Administrator required by this section shall be submitted to the Director, Navajo Environmental Protection Agency, P.O. Box 339, Window Rock, Arizona 86515, (928) 871-7692, (928) 871-7996 (facsimile), and to the Director, Air Division, U.S. Environmental Protection Agency, Region IX, to the attention of Mail Code: AIR-5, at 75 Hawthorne Street, San Francisco, California 94105, (415) 972-3990, (415) 947-3579 (facsimile). For each unit subject to the emissions limitations in this section the owner or operator shall:

- a. Comply with the notification and recordkeeping requirements for testing found in 40 CFR 60.7. All data/reports of testing results shall be submitted to the Regional Administrator and postmarked within 60 days of testing.
- b. For excess emissions, notify the Navajo Environmental Protection Agency Director and the U.S. Environmental Protection Agency Regional Administrator by telephone or in writing within one business day. This notification should be sent to the Director, Navajo Environmental Protection Agency, by mail to: P.O. Box 339, Window Rock, Arizona 86515, or by facsimile to: (928) 871-7996 (facsimile), and to the Regional Administrator, U.S. Environmental Protection Agency Region 9, by mail to the attention of Mail Code: AIR-5, at 75 Hawthorne Street, San Francisco, California 94105, by facsimile to: (415) 947-3579 (facsimile), or by e-mail to: r9.aeo@epa.gov. A complete written report of the incident shall be submitted to the Regional Administrator within ten (10) working days after the event. This notification shall include the following information:
 - (i) The identity of the stack and/or other emissions points where

excess emissions occurred;

- (ii) The magnitude of the excess emissions expressed in the units of the applicable emissions limitation and the operating data and calculations used in determining the magnitude of the excess emissions;
 - (iii) The time and duration or expected duration of the excess emissions;
 - (iv) The identity of the equipment causing the excess emissions;
 - (v) The nature and cause of such excess emissions;
 - (vi) If the excess emissions were the result of a malfunction, the steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunction; and
 - (vii) The steps that were taken or are being taken to limit excess emissions.
- c. Notify the Regional Administrator verbally within one business day of determination that an exceedance of the NAAQS has been measured by a monitor operated in accordance with this regulation. The notification to the Regional Administrator shall include the time, date, and location of the exceedance, and the pollutant and concentration of the exceedance. Compliance with Condition II.A.4.c.v shall not excuse or otherwise constitute a defense to any violations of this section or of any law or regulation which such excess emissions or malfunction may cause. The verbal notification shall be followed within fifteen (15) days by a letter containing the following information:
- (i) The time, date, and location of the exceedance;
 - (ii) The pollutant and concentration of the exceedance;
 - (iii) The meteorological conditions existing 24 hours prior to and during the exceedance;
 - (iv) For a particulate matter exceedance, the 6-minute average opacity monitoring data greater than 20% for the 24 hours prior to and during the exceedance; and
 - (v) Proposed plant changes such as operation or maintenance, if any, to prevent future exceedances.
- d. Submit quarterly excess emissions reports for sulfur dioxide and opacity as recorded by CEMS and COMS together with a CEMS data assessment

report to the Regional Administrator no later than 30 days after each calendar quarter. The owner or operator shall complete the excess emissions reports according to the procedures in 40 CFR 60.7(c) and (d) and include the Cylinder Gas Audit. Excess opacity due to condensed water vapor in the stack does not constitute a reportable exceedance; however, the length of time during which water vapor interfered with COMs readings should be summarized in the 40 CFR 60.7 (c) report.

5. Compliance Certifications [40 CFR § 49.5513(g)]:

Notwithstanding any other provision in this implementation plan, the owner or operator may use any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test had been performed, for the purpose of submitting compliance certifications.

6. Equipment Operations [40 CFR § 49.5513(h)]:

The owner or operator shall operate all equipment or systems needed to comply with this section in accordance with 40 CFR 60.11(d) and consistent with good engineering practices to keep emissions at or below the emissions limitations in this section, and following outages of any control equipment or systems the control equipment or system will be returned to full operation as expeditiously as practicable.

7. Enforcement [40 CFR § 49.5513(i)]:

- a. Notwithstanding any other provision in this implementation plan, any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test had been performed, can be used to establish whether or not a person has violated or is in violation of any standard in the plan.
- b. During periods of start-up and shutdown the otherwise applicable emission limits or requirements for opacity and particulate matter shall not apply provided that:
 - (i) At all times the facility is operated in a manner consistent with good practice for minimizing emissions, and the owner or operator uses best efforts regarding planning, design, and operating procedures to meet the otherwise applicable emission limit;
 - (ii) The frequency and duration of operation in start-up or shutdown mode are minimized to the maximum extent practicable; and
 - (iii) The owner or operator's actions during start-up and shutdown periods are documented by properly signed, contemporaneous

operating logs, or other relevant evidence.

- c. Emissions in excess of the level of the applicable emission limit or requirement that occur due to a malfunction shall constitute a violation of the applicable emission limit. However, it shall be an affirmative defense in an enforcement action seeking penalties if the owner or operator has met with all of the following conditions:
 - (i) The malfunction was the result of a sudden and unavoidable failure of process or air pollution control equipment and did not result from inadequate design or construction of the process or air pollution control equipment;
 - (ii) The malfunction did not result from operator error or neglect, or from improper operation or maintenance procedures;
 - (iii) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance;
 - (iv) Steps were immediately taken to correct conditions leading to the malfunction, and the amount and duration of the excess emissions caused by the malfunction were minimized to the maximum extent practicable;
 - (v) All possible steps were taken to minimize the impact of the excess emissions on ambient air quality;
 - (vi) All emissions monitoring systems were kept in operation if at all possible; and
 - (vii) The owner or operator's actions in response to the excess emissions were documented by properly signed, contemporaneous operating logs, or other relevant evidence.

II.B. PSD Permit Requirements [PSD Permit AZ 08-01]¹

Low-NO_x Burner (LNB) & Separated Over-fire Air (SOFA) Requirements:

- 1. **Prior to commencement of installation, the permittee shall submit the following information to EPA [PSD Permit AZ 08-01 IX.A]:**
 - a. Design specifications of the LNB/SOFA system to be installed.
 - b. At least one month prior to the date of initial start-up, an LNB/SOFA

¹ NNEPA has added Condition II.B to the permit as an administrative amendment pursuant to NNOPR § 405(C), see also 40 C.F.R. § 71.7(d), in order to incorporate the requirements of existing PSD permit AZ 08-01 issued by US EPA. Condition II.B is included here for informational purposes only and is not subject to public comment.

system operating plan which sets forth measures that will be taken to maintain and operate the system in a manner to ensure compliance with the emission limits specified in Condition II.B.2.

2. Emission Limits [PSD Permit AZ 08-01 IX.B]:

- a. Carbon monoxide (CO) emissions from each unit shall not exceed 0.42 lb/MMBtu based on a 30-day rolling average.
- b. Nitrogen oxide emissions (NO_x) from each unit shall not exceed 0.24 lb/MMBtu based on a 30-day rolling average.

3. Demonstration Period Requirements [PSD Permit AZ 08-01 IX.C]:

- a. Demonstration Period is defined as the first 18 months of operation after installation of the LNB/SOFA system.
- b. After the Demonstration Period for each LNB/SOFA system, the permittee shall submit to EPA a written report together with CO CEMS data showing actual CO emissions which evaluates whether a lower CO emissions limit can be consistently and reasonably achieved while maintaining NO_x emission levels at or below 0.24 lb/MMBtu on a 30-day rolling average. The report shall provide all supporting documentation identifying the combustion characteristics that impact CO emissions and evaluate the potential for reducing the CO emission limit to a level that can be consistently and reasonably met. Within 30 days after the EPA concludes in writing that the report is acceptable, the permittee shall apply for a permit modification to decrease the CO emission limit. This report shall also evaluate the ten highest occurrences for a one-hour average and an 8-hour average for pounds per hour CO. If these averages are inconsistent (higher) with the modeling submittal, either a new modeling analysis will be required to assure maintenance of the CO NAAQS or a short term limit will be established for the permit.

4. At all times, including periods of startup and shutdown, the permittee shall, to the extent practicable, maintain and operate the LNB/SOFA system in a manner consistent with good combustion practices to minimize emissions [PSD Permit AZ 08-01 IX.D]

5. Continuous Emission Monitoring Systems [PSD Permit AZ 08-01 IX.E]:

- a. Within 60 days of completion of installation of each LNB/SOFA system, the permittee shall install, and thereafter operate, maintain, certify, and quality assure a continuous emission monitoring system (CEMS) for each boiler which measures stack gas CO concentrations in lb/MMBtu.
- b. The CO CEMS shall meet the applicable requirements of 40 CFR Part 60 Appendix B, Performance Specifications 3 and 4A, and 40 CFR Part 60

Appendix F, Procedure 1. The diluent monitor (O_2 or CO_2) must meet the requirements of 40 CFR Part 75.

- c. The permittee shall operate, maintain, and quality-assure according to the requirements of 40 CFR Part 75, a CEMS for each boiler which measures stack gas NO_x concentrations in lb/MMBtu. The NO_x CEMS must meet the requirements of 40 CFR Part 75.
- d. The CO CEMS shall complete a minimum of one cycle of operations (sampling, analyzing and data recording) for each successive 15-minute period.
- e. The permittee shall submit a CO CEMS performance test protocol to the EPA no later than 30 days prior to the test date to allow review of the test plan and to arrange for an observer to be present at the test. The performance test shall be conducted in accordance with the submitted protocol, and any changes required by EPA.
- f. The permittee shall furnish the EPA a written report of the results of performance tests within 60 days of completion.
- g. The CO CEMS shall be tested annually and quarterly in accordance with the requirements of 40 CFR 60 Appendix F, Procedure 1. The NO_x CEMS shall meet the quality assurance requirement found in 40 CFR Part 75.

6. Performance Test [PSD Permit AZ 08-01 IX.F]:

A thirty day initial performance test for CO and NO_x shall be conducted with the CEMS starting the day after successful completion of the performance testing for the CO CEMS. A report of the NO_x and CO hourly emissions during this initial test shall be submitted to EPA within 30 days of completion of the test.

7. Recordkeeping and Reporting Requirements [PSD Permit AZ 08-01 IX.G]:

- a. The permittee shall maintain records of the hours of operation for U1, U2 and U3 on a monthly basis.
- b. The permittee shall maintain records of the amount of fuel used in U1, U2 and U3 on a monthly basis.
- c. The permittee shall maintain all records on site of actual operating data and emissions calculations for emissions limits required in Condition II.B.2.
- d. The permittee shall maintain CEMS records that contain the following: the occurrence and duration of any startup, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance, duration of any periods during which a continuous

monitoring system or monitoring device is inoperative, and emission measurements.

- e. The permittee shall maintain records and submit a written report of all excess emissions to EPA semi-annually. The report is due on the 30th day following the end of the calendar quarter and shall include the following:
 - (i) Time intervals, data and magnitude of the excess emissions, the nature and cause (if known), corrective actions taken and preventive measures adopted;
 - (ii) Applicable time and date of each period during which the CEMS was inoperative (monitor down time), except for zero and span checks, and the nature of system repairs or adjustments; and
 - (iii) A negative declaration when no excess emissions occurred or when the CEMS has not been inoperative, repaired, or adjusted.
- f. Excess emissions shall be defined as any operating day in which the 30-day rolling average CO and NO_x concentration, as measured by the CEMS, exceeds the maximum emission limits set forth in Condition II.B.2.
- g. A period of monitor down time shall be any unit operating hour in which sufficient data are not obtained to validate the hour for CO, NO_x, or O₂.
- h. Excess emissions indicated by the CEMS shall be considered violations of the applicable emission limit for the purpose of this permit.
- i. All records required by this PSD Permit shall be retained for five years following the date of such measurements, maintenance, and reports.

II.C. CAM Requirements [40 CFR Part 64]

The following provisions shall apply to each unit (U1-U3):

- 1. Monitoring
 - a. The indicator ranges are defined by the following thresholds [40 CFR § 64.6(c)(1)(i)]:
 - (i) For each Electrostatic Precipitator (ESP), no more than 3 chambers (18 fields) shall be out of service at one time.
 - (ii) If less than 2 spray levels are operating in each wet limestone scrubber, then for the same boiler, no more than 1 chamber (6 fields) shall be out of service in the ESP for that boiler.

- (iii) For each wet limestone scrubber, the temperature shall not exceed 145°F on a 1 hour average, as measured by a J-type thermocouple.
 - (iv) No more than one wet limestone scrubber shall be bypassed at one time, and the same wet limestone scrubber shall not be bypassed for more than 1 hour.
 - b. The means or devices by which the indicators will be measured are as follows [40 CFR § 64.6(c)(1)(ii)]:
 - (i) Status bits from the Automatic Voltage Controllers (AVCs) shall be recorded on a continuous basis by the BHA WinDAC Data Acquisition and Control Software and supplemented with operating logs; these status bits indicate the number of chambers/fields that are operational in the ESPs.
 - (ii) The wet limestone scrubber spray level signal shall be recorded on a continuous basis by a data acquisition handling system.
 - (iii) A J-type thermocouple at the wet limestone scrubber exhaust shall measure the temperature of the exhaust and be recorded as an hourly average by a data acquisition system.
 - (iv) An on/off signal on the wet limestone scrubber indicating that the wet limestone scrubber is operational shall be recorded on a continuous basis by a data acquisition handling system.
 - c. The permittee shall conduct performance testing in accordance with 40 CFR § 64.4(d) to ensure that compliance with the particulate matter emission limits in Condition II.A.2.b can be achieved when more than 3 chambers of an ESP unit are out of service. The testing shall be conducted at the first possible opportunity, i.e. the earliest time during which more than 3 chambers are out of service in an ESP unit. [40 CFR § 64.6(c)(1)(iii)]
- 2. Excursions during normal operation of the boilers are defined below [40 CFR § 64.6(c)(2)]. Normal operation of the boiler is specified as any time the boiler is operating in its usual manner in accordance with good air pollution control practices for minimizing emissions. [Condition II.C.6.a]
 - a. When an ESP unit is operating with more than 3 chambers (18 fields) out of service.
 - b. When an ESP unit is operating with more than 1 chamber (6 fields) out of service and less than 2 spray levels are operating in the wet limestone scrubber associated with the same boiler.

- c. When the exhaust temperature for a wet limestone scrubber exceeds 145°F for more than one unit, on a 1 hour average basis.
 - d. When a wet limestone scrubber is bypassed for more than one unit and the same wet limestone scrubber is bypassed for more than 1 hour.
- 3. The permittee shall continuously monitor and log the following measurements upon issuance of this permit [40 CFR § 64.6(c)(3), 40 CFR § 64.7(a)]:
 - a. The number of chambers/fields in service for each ESP unit.
 - b. The number of wet limestone scrubber spray levels in service for each boiler unit.
 - c. The wet limestone scrubber exhaust temperatures at the absorber outlets of each boiler unit.
 - d. The wet limestone scrubber on/off signal of each boiler unit.
- 4. At all times, the permittee shall maintain the monitoring equipment, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment. [40 CFR § 64.7(b)]
- 5. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this permit, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. [40 CFR § 64.7(c)]
- 6. Response to excursions or exceedances [40 CFR § 64.7(d)]
 - a. Upon detecting an excursion or exceedance, the permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall

include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

- b. Determination of whether the permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.
- 7. If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify NNEPA and, if necessary, submit a proposed modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. [40 CFR § 64.7(e)]
- 8. Based on the results of a determination made under Condition II.C.6.b of this permit, NNEPA may require the permittee to develop and implement a QIP. In addition, NNEPA may require the implementation of a QIP if an accumulation of exceedances or excursions exceeds 5 percent duration of each unit's (U1-U3) operating time for one calendar quarter. [40 CFR § 64.8(a)]
- 9. Reporting and Recordkeeping Requirements [40 CFR § 64.9]
 - a. A report for monitoring under this permit shall include, at a minimum, the information required under Condition III.C of this permit and the following information, as applicable:
 - (i) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

- (ii) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
 - (iii) A description of the actions taken to implement a Quality Improvement Plan (QIP) during the reporting period as specified in 40 CFR § 64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.
- b. The permittee shall comply with the recordkeeping requirements specified in Condition III.B.3 of this permit. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written QIP required pursuant to 40 CFR § 64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).
- c. Instead of paper records, the permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

IV.C. Compliance Certifications [40 CFR § 71.6(c)(5)] [NNOPR § 302(I)] [The NNOPR provision is enforceable by NNEPA only]

1. The permittee shall submit to NNEPA and US EPA Region 9 a semi-annual certification of compliance with permit terms and conditions, including emission limitations, standards, or work practices, postmarked by January 31 and July 31 of each year and covering the previous six-month period ending on December 31 and June 30, respectively. The compliance certification shall be certified as to truth, accuracy, and completeness by the permit-designated responsible official consistent with Condition III.C.4 of this permit [40 CFR § 71.6(c)(5)].
2. The certification shall include the following [40 CFR § 71.6(c)(5)(iii)]:
 - a. Identification of each permit term or condition that is the basis of the certification.
 - b. Identification of the method(s) or other means used for determining the compliance status of each term and condition during the certification period, and whether such methods or other means provide continuous or intermittent data.

If necessary, the permittee also shall identify any other material information that must be included in the certification to comply with Section 113(c)(2) of the Clean Air Act, which prohibits knowingly making a false certification or omitting material information.
 - c. The compliance status of each term and condition of the permit for the period covered by the certification based on the method or means designated above. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance has occurred pursuant to this permit.
 - d. Whether compliance with each permit term was continuous or intermittent.

THE NAVAJO NATION



BEN SHELLY PRESIDENT
REX LEE JIM VICE PRESIDENT

Navajo Nation Environmental Protection Agency – Air Quality Control/Operating Permit Program

Post Office Box 529, Fort Defiance, AZ 86504 • Rt.112 North, Bldg # 2837

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Detailed Information

Permitting Authority: NNEPA

County: Coconino

State: Arizona

AFS Plant ID: 04-005-N0423

Facility: Navajo Generating Station

Document Type: TITLE V PERMIT REOPENING - STATEMENT OF BASIS

PART 71 FEDERAL OPERATING PERMIT TITLE V PERMIT REOPENING - STATEMENT OF BASIS

Navajo Generating Station
Permit No. NN-ROP-05-06-A

1. **Facility Information**

a. Permittee

Navajo Generating Station
5 Miles East of Page, off U.S. Highway 98
Page, Arizona 86040

Mailing Address:

P.O. Box 850
Page, Arizona 86040

Managing Participant Name:

Salt River Project Agricultural Improvement
and Power District (SRP)*

Mailing Address:

P.O. Box 52025, PAB 352
Phoenix, Arizona 85072-2025

*Note: This facility is co-owned by 6 entities. SRP is listed as the managing participant in this permit since they act as the facility operator, and have accepted the responsibility to obtain environmental permits for Navajo Generating Station, including an Acid Rain permit and Part 71 Permit. In addition to SRP, the other 5 co-owners of this facility are:

1. Los Angeles Department of Water and Power (LADWP)
2. Arizona Public Service Company (APS)
3. Tucson Electric Power (TEP)
4. Nevada Power Company (NPC)
5. U.S. Bureau of Reclamation (USBR)

b. Contact Information

Facility Contact:	Paul Ostapuk O&M Manager	Phone: (928) 645-6577 Facsimile: (928) 645-7298
Responsible Official:	Robert K. Talbot Plant Manager	Phone: (928) 645-6217 Facsimile: (928) 645-7298

c. Permit Reopening

The federal operating permit program provides for a permit to be reopened for cause under certain circumstances. One of the circumstances requiring reopening, as described in 40 CFR § 71.7(f)(1)(i), NNOPR § 406 and Condition IV.L of the existing permit, is if "Additional applicable requirements under the Act become applicable to a major Part 71 source with a remaining permit term of 3 or more years." The current permit for the facility was issued on July 3, 2008 and is valid for 5 years from that date. When the permit was issued, US EPA had proposed a Source-Specific Federal Implementation Plan (FIP) for the Navajo Generating Station (NGS) but had not yet issued a final FIP. The Statement of Basis supporting the July 3, 2008 permit renewal provided that "This Part 71 permit renewal will be reopened to include the final version of the FIP when it is promulgated." Statement of Basis at 2.

U.S. EPA promulgated the FIP for NGS, codified in 40 CFR § 49.24, on March 5, 2010, and it became effective on April 5, 2010. The FIP for NGS has been recodified in 40 CFR § 49.5513. There were more than three years remaining on the permit term as of that date. The FIP established federally enforceable emissions limits for Sulfur Dioxide (SO₂) and Particulate Matter (PM), as well as opacity limits for the boiler stacks, coal storage and handling, and other dust generating activities. The FIP also established related requirements for testing, monitoring, recordkeeping, and reporting. The PM emission limit triggered Compliance Assurance Monitoring (CAM) 40 CFR § 64 requirements because the applicability criteria for each boiler were met pursuant to 40 CFR § 64.2(a). The CAM Plan has been approved by U.S. EPA and NNEPA pursuant to 40 CFR § 64.6.

On May 11, 2010, NNEPA notified NGS of the intent to reopen the NGS Title V Permit to include the FIP requirements. NNEPA is proposing to include two new conditions under Requirements for Specific Units: Conditions II.A (Federal Implementation Plan Requirements) and II.C (CAM Requirements). NNEPA also is proposing to revise Condition IV.C (Compliance Certifications) to include the CAM requirements. Changes also have been made to the Table of Contents and to Condition I (Source Identification) to reflect these proposed additions and revisions.

Finally, NNEPA is proposing to revise Condition IV.C to include a reference to NNOPR § 302(I) as an authorizing provision, in addition to 40 C.F.R. § 71.6(c)(5). The NNOPR provision is enforceable by NNEPA only, as stated in the proposed

revision. The parallel tribal citation does not impact the federal enforceability of the cited Part 71 requirement. It requires a compliance certification to be submitted semiannually rather than annually, which is consistent with 40 C.F.R. § 71.6(c)(5). NNEPA, as the delegated permitting authority, has determined that semiannual rather than annual compliance certification is appropriate because it provides greater assurance that the facility is operating in compliance on an ongoing basis, and the Condition is proposed to be revised accordingly. The other NNOPR provisions referenced in the permit are also enforceable only by NNEPA, and NNEPA intends to clarify this limitation when the permit is renewed.

d. Permitted Emission Units and Control Equipment

The July 3, 2008 Statement of Basis that supports the Title V Permit Renewal contains a complete list of the significant emission units at the facility. The "Control Method" column has been updated to incorporate the installation of LNBs and SOFA on all three existing boilers.

Unit ID/ Stack ID	Unit Description	Maximum Capacity	Commenced Construction Date	Control Method
U1/ Stack S1	One (1) pulverized coal-fired boiler, using No. 2 fuel oil for ignition fuel. Stack S1 is equipped with SO ₂ , CO, and NO _x CEMS, and a COMS.	7,725 MMBtu/hr; 750 Net MW	1970	LNB/SOFA (2011) FGD system SCBR1 (1999); ESP1
U2/ Stack S2	One (1) pulverized coal-fired boiler, using No. 2 fuel oil for ignition fuel. Stack S2 is equipped with SO ₂ , CO and NO _x CEMS, and a COMS.	7,725 MMBtu/hr; 750 Net MW	1970	LNB/SOFA (2010) FGD system SCBR2 (1998); ESP2
U3/ Stack S3	One (1) pulverized coal-fired boiler, using No. 2 fuel oil for ignition fuel. Stack S3 is equipped with SO ₂ , CO and NO _x CEMS, and a COMS.	7,725 MMBtu/hr; 750 Net MW	1970	LNB/SOFA (2009) FGD system SCBR3 (1997); ESP3

Note: LNB: Low-NO_x Burner, SOFA: Separated Over-fire Air, FGD: Flue Gas Desulfurization, SCBR: Scrubber, ESP: Electrostatic Precipitator.

e. Emissions Calculations

Please see Appendix A of this document for the revised NO_x and CO calculations for Units U1, U2, and U3 (pages 1 through 4).

f. Potential to Emit

Potential to emit (PTE) means the maximum capacity of a facility to emit any air pollutant (Clean Air Act criteria pollutants or hazardous air pollutants) under its physical and operational design. Any physical or operational limitations on the maximum capacity of this plant to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of

material combusted, stored, or processed, may be treated as a part of its design if the limitation is enforceable by U.S. EPA or NNEPA. Actual emissions are typically lower than the PTE. The PTE for Units U1, U2 and U3 has been revised to reflect the NO_x and CO emission limitations set in PSD permit AZ 08-01.

Process/facility	Potential to Emit (tons/year)						
	PM	PM-10	SO ₂	NO _x	VOC	CO	HAPs
Boiler B1	2,030	519	3,384	8,121	94.2	14,211	125
Boiler B2	2,030	519	3,384	8,121	94.2	14,211	125
Boiler B3	2,030	519	3,384	8,121	94.2	14,211	125
Auxiliary Boilers	60.7	60.7	1,444	442	3.68	92.0	11.1
Coal Handling	10.66	6.44	-	-	-	-	-
Coal Piles (Fugitive)	5.43	2.57	-	-	-	-	-
Limestone Handling	4.61	2.98	-	-	-	-	-
Limestone Piles (Fugitive)	4.60	2.17	-	-	-	-	-
Fly Ash Handling	29.2	29.2	-	-	-	-	0.01
Soda Ash/Lime Handling	0.26	0.26	-	-	-	-	-
Cooling Towers	19.2	19.2	-	-	-	-	-
Unpaved Roads (Fugitive)	591	153	-	-	-	-	-
Emergency Generators	0.74	0.74	0.69	10.5	0.83	2.26	Negligible
Other Insignificant Activities*	Less than 5.00	Less than 5.00	-	Less than 5.00	-	-	Negligible
PTE of the Entire Source	6,822	1,838	11,595	24,819	292	42,727	387
Title V Major Source Thresholds	NA	100	100	100	100	100	10 for a single HAP and 25 for total HAPs

*Note: This is an estimate on the PM/PM10 emissions from the welding and blasting operations, and VOC/HAP emissions from the parts cleaning, surface coating operations, and the storage tanks.

2. Prevention of Significant Deterioration (PSD) Applicability

The following requirements summarize the PSD permit AZ 08-01 issued by U.S.EPA on November 20, 2008.

- a. CO emissions from each unit shall not exceed 0.42 lb/MMBtu based on a 30-day rolling average. [PSD permit AZ 08-01 Condition IX.B.1]

- b. NO_x emissions from each unit shall not exceed 0.24 lb/MMBtu based on a 30-day rolling average. [PSD permit AZ 08-01 Condition IX.B.2]
- c. At all times, including periods of startup and shutdown, the Permittee shall, to the extent practicable, maintain and operate the LNB/SOFA system in a manner consistent with good combustion practices to minimize emissions. [PSD permit AZ 08-01 Condition IX.D]
- d. The permittee shall install, operate, maintain, certify, and quality-assure a continuous emission monitoring system (CEMS) for each boiler for CO. [PSD Permit AZ 08-01 Condition IX.E.1]
- e. The permittee shall operate, maintain, and quality-assure according to the requirements of 40 CFR § 75 a CEMS for each boiler for NO_x. [PSD Permit AZ 08-01 Condition IX.E.3]

3. Federal Rule Applicability

- a. This source is subject to the Source-Specific FIP for NGS codified in 40 CFR § 49.24 (recodified in 40 CFR § 49.5513). This rule was proposed on September 12, 2006 and the public notice period closed on November 6, 2006. The FIP was promulgated on March 5, 2010 and became effective on April 5, 2010. A summary of the emission limits in this FIP is included below:
 - (1) The plant wide SO₂ emissions shall not exceed 1.0 lb/MMBtu on a 3 hour plant-wide average, and compliance is based on continuous emission monitoring (CEM).
 - (2) PM emissions shall not exceed 0.060 lb/MMBtu, on a plant-wide basis, averaged from at least three 60 minute sampling runs for each stack, each collecting a minimum sample of 30 dry standard cubic feet.
 - (3) For Units U1, U2, and U3, opacity shall not exceed 20% averaged over a 6 minute period excluding condensed water droplets, and opacity shall not exceed 40% averaged over 6 minutes during absorber upset transition periods.
 - (4) Opacity shall not exceed 20% averaged over a 6 minute period for dust from emission associated with coal transfer and storage and other dust-generating activities, as well as each boiler stack. The permittee shall operate and maintain the existing dust suppression methods for controlling dust from the coal handling and storage facilities. Within ninety (90) days after promulgation of this FIP, the permittee shall submit to the Regional Administrator a description of the dust suppression methods for controlling dust from the coal handling and storage facilities, fly ash handling and storage, and road sweeping activities.

- (5) The permittee shall comply with the testing, monitoring, reporting, and recordkeeping requirements specified in 40 CFR § 49.5513(e) and (f).
- b. Units U1, U2, and U3 are subject to the SO₂ emission limit specified in Condition II.A.2.a. Pursuant to 40 CFR 52.145(d)(4), the permittee has previously installed SO₂ CEMS on each unit to continuously monitor the SO₂ emissions from Units U1, U2, and U3 in order to comply with 40 CFR 52.145(d)(2). This continuous compliance determination method has been incorporated into this permit as Condition II.A.3.a. Therefore, the SO₂ emissions from Units U1, U2, and U3 are exempt from the CAM requirements of 40 CFR § 64, pursuant to 40 CFR § 64.2(b)(1)(vi).

Units U1, U2, and U3 are subject to the NO_x emission limit specified in Condition II.B.2.b. Pursuant to 40 CFR § 75.10(a)(2), the permittee has previously installed NO_x CEMS on each unit to continuously monitor the NO_x emissions from Units U1, U2, and U3. This continuous compliance determination method has been incorporated into this permit in Conditions II.A.3.a and II.B.5.c. Therefore, the NO_x emissions from Units U1, U2, and U3 are exempt from the CAM requirements of 40 CFR § 64, pursuant to 40 CFR § 64.2(b)(1)(vi).

The FIP for this source has specific PM emission limits for Units U1, U2, and U3. CAM 40 CFR § 64 requirements were triggered because the three following applicability criteria for each boiler were met pursuant to 40 CFR § 64.2(a). Each unit is subject to the PM emission limit promulgated in the FIP, each unit uses a wet limestone scrubber and an Electrostatic Precipitator (ESP) to meet the emission limit and each unit has pre-control device boiler emissions that exceed 100 tons per year and is considered a Title V major source.

On June 7, 2010, the permittee submitted the CAM plan for Units U1, U2, and U3 to U.S. EPA and NNEPA. On December 1, 2010 the permittee submitted an updated CAM plan to address the comments received from U.S. EPA and NNEPA regarding the initial CAM plan review. The requirements contained in 40 CFR § 64.3-64.5 have been met and the CAM Plan has been approved by U.S. EPA and NNEPA pursuant to 40 CFR § 64.6. The following table summarizes the CAM Plan for Units U1, U2, and U3.

	Electrostatic Precipitator	Wet Limestone Scrubber	Wet Limestone Scrubber	Wet Limestone Scrubber
Indicator	Number of chambers/fields in service	Number of Spray levels in service	Wet limestone scrubber exhaust temperature	Wet limestone scrubber on/off
Measurement Approach	The number of chambers/fields in service is monitored and logged on a continuous basis.	The number of wet limestone scrubber spray levels in service is monitored on a continuous basis.	The wet limestone scrubber exhaust temperatures are monitored at the absorber outlets prior to the stack	The wet limestone scrubber on/off signal is monitored on a continuous basis.

			using a J-type thermocouple.	
Indicator Threshold	An excursion is defined as follows: When an ESP unit is operating with more than 3 chambers (18 fields) out of service during normal operation of the boiler.	An excursion is defined as follows: When a ESP unit is operating with more than one chamber (6 fields) out of service and less than 2 spray levels are operating in the wet limestone scrubber associated with the same boiler, during normal operations of the boiler.	An excursion is defined as follows: When the wet limestone scrubber exhaust temperatures exceed 145°F for more than one unit, on a 1-hour average basis, during normal operation of the boilers.	An excursion is defined as follows: When the wet limestone scrubber is bypassed for more than one unit, for at least 1 hour, during normal operation of the boilers.
Performance Criteria	The monitoring system consists of status bits from the Automatic Voltage Controllers (AVCs), supplemented with operating logs, which indicate the number of chambers/fields that are operational.	The monitoring system consists of a signal indicating the number of wet limestone scrubber spray levels that are operational.	The monitoring system consists of a J-type thermocouple at the wet limestone scrubber exhaust with a minimum accuracy of ± 5 percent.	The monitoring system consists of an on/off signal indicating that the wet limestone scrubber is operational.
Verification of Operational Status	Not Applicable	Not Applicable	Not Applicable	Not Applicable
QA/QC	Monitoring equipment will be maintained and operated according to manufacturer recommendations.	The wet limestone scrubber spray level signal will undergo an annual verification check.	The thermocouple will undergo a quarterly verification check using a standard temperature indicator.	The wet limestone scrubber on/off signal will undergo an annual verification check.
Monitoring Frequency	Continuous	Continuous	The wet limestone scrubber exhaust temperature is measured continuously.	The wet limestone scrubber on/off signal is monitored continuously.
Data Collection Procedures	The AVC status bits are recorded by the BHA WinDAC Data Acquisition and Control Software, and supplemented with operating logs.	The wet limestone scrubber spray level signal will be recorded on a continuous basis by the data acquisition handling system.	The wet limestone scrubber exhaust temperature will be recorded as an hourly average by a data acquisition handling system.	The wet limestone scrubber on/off signal will be recorded on a continuous basis by the data acquisition handling system.

Averaging Period	Not Applicable	Not Applicable	1-Hour average	Not Applicable
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Summary of Applicable Federal Requirements

Federal Air Quality Requirement	Current or Future Requirement
Federal Implementation Plan (40 CFR § 49.5513)	Current
PSD Permit AZ 08-01	Current
CAM (40 CFR § 64)	Current
Acid Rain Regulations (40 CFR § 72-76)	Current
Visibility FIP (40 CFR § 52.145(d))	Current
NSPS for Non-metallic Mineral Processing Plants (40 CFR § 60, Subpart OOO)	Current
Asbestos NESHAP (40 CFR § 61, Subpart M)	Current
Protection of Stratospheric Ozone (40 CFR § 82)	Current
Regional Haze Rule (BART)	Future

4. NNEPA Authority

Authority to administer the Part 71 Permit Program was delegated to the Navajo Nation EPA by U.S. EPA Region 9 in part on October 13, 2004 and in whole on March 21, 2006. This permit is issued pursuant to the Voluntary Compliance Agreement between the permittee and the Navajo Nation. The permittee shall comply with the terms of this permit and shall be subject to enforcement of the permit by the Navajo Nation EPA, pursuant to the terms of the Voluntary Compliance Agreement. The permittee's agreement to comply is effective upon the permittee's written acceptance of the permit and expires at the end of the permit term, unless the permit is renewed. The permittee's agreement to comply may be withdrawn during the permit term only if the Voluntary Compliance Agreement is terminated or expires as provided in that Agreement.

5. Public Participation

Please see the Public Notice, Public Notice of a Hearing, and Response to Comments for detailed information on public participation (Appendices C, D, and E).

a. Public Notice

As required by NNOPR § 403(A), the reopened portions of the permit are being publicly noticed and made available for public comment. The content, methods, and timing of public notice are described in NNOPR § 403(B)-(D), and include a 30-day public comment period. *See also* 40 CFR § 71.11(d) (equivalent public notice and comment provisions).

As described in 40 CFR § 71.7(f)(2) proceedings to reopen the permit shall affect only those part of the permit for which the cause to reopen exists, therefore NNEPA will

consider comments on the following sections of the permit only:

- II.A Federal Implementation Plan Requirements
- II.C CAM Requirements
- IV.C Compliance Certifications¹

Public notice of this proposed permit action will be provided by mailing a copy of the notice to the permittee, U.S. EPA Region 9, and the affected states (Utah and Arizona). A copy of the notice will also be provided to all persons who submit a written request to be included on the mailing list to the following individual:

Charlene Nelson (Program Supervisor)
Navajo Air Quality Control Program
Operating Permit Program Section
P.O. Box 529
Fort Defiance, AZ 86504
E-mail: charlenenelson@navajo.org

Public notice will be published in a daily or weekly newspaper of general circulation in the area affected by this source.

b. Opportunity for Comment

Members of the public may review a copy of the draft reopened portions of the permit prepared by NNEPA, this statement of basis, and all supporting materials (including the entire draft permit) at:

Navajo Nation Air Quality Control Program
Route 112 North, Bldg No. F004-51
Fort Defiance, AZ 86504

Copies of the draft reopened portions of the permit, this statement of basis, and all supporting materials (including the entire draft permit) can also be obtained free of charge from NNEPA's website:

www.navajonationepa.org/airqty/permits

or by contacting Charlene Nelson at the NNAQCP address listed above or by telephone at (928) 729-4247. All documents will be available for review at the NNAQCP office indicated above during regular business hours.

¹ In addition, NNEPA has used this opportunity to make a revision to the permit in the nature of an administrative permit amendment, which is not subject to public notice and comment. See NNOPR § 405(C); see also 40 C.F.R. § 71.7(d). The revision incorporates into the part 71 permit the requirements from the preconstruction review permit, PSD permit AZ 08-01 issued by U.S.EPA. See 40 C.F.R. § 71.7(d)(1)(v) and Condition II.B, PSD Permit Requirements.

If you have comments on the reopened portions of the permit, which are listed in Section 5(a) above, you must submit them during the 30-day public comment period. All comments received during the public comment period and all comments made at any public hearing will be considered in arriving at a final decision on the permit. The final permit is a public record that can be obtained by request. A statement of reason for changes made to the draft permit and responses to comments received will be sent to persons who commented on the draft permit.

If you believe that any permit conditions listed in Section 5(a) above are inappropriate, you must raise all reasonably ascertainable issues and submit all arguments supporting your position by the end of the comment period. Any supporting documents must be included in full and may not be incorporated by reference, unless they are already part of the administrative record for this permit or consist of tribal, state or federal statutes or regulations, or other generally available referenced materials.

c. Opportunity to Request a Hearing

A person may submit a written request for a public hearing to Charlene Nelson, at the address listed in Section 5(a) above, by stating the nature of the issues to be raised at the public hearing. Based on the number of hearing requests received, NNEPA will hold a public hearing whenever it finds there is a significant degree of public interest in a draft operating permit. If a public hearing is held, NNEPA will provide public notice of the hearing and any person may submit oral or written statements and data concerning the draft permit.

d. Mailing List

If you would like to be added to our mailing list to be informed of future actions on this or other Clean Air Act permits issued on the Navajo Nation, please send your name and address to Charlene Nelson at the address listed in Section 9(a) above.

Appendix A: Emissions Calculations

**Appendix A: Emission Calculations
Criteria Pollutant Emissions from
the Coal Fired Boiler U1**

**Company Name: Navajo Generating Station
Address: 5 miles east of Page, off U.S. Highway 98, Page, AZ 86040
Permit No.: NN-ROP-05-06**

Max. Heat Input Capacity
MMBtu/hr

7,725

Ash Content (A)

13.5 % (provided by the source)

Emission Factor	Pollutant					
	PM ^a	PM10 ^b	SO ₂ ^c	NOx ^d	VOC ^e	CO ^d
	0.06	0.3305	0.10	0.24	0.06	0.42
	(lbs/MMBtu)	(2.3A*0.01+0.02) (lbs/ton)	(lbs/MMBtu)	(lbs/MMBtu)	(lbs/ton)	(lbs/MMBtu)
Potential to Emit in (tons/yr)	2,030	519	3,384	8,121	94.2	14,211

^a PM emission factor is the emission limit in 40 CFR 49.20.

^b PM10 emission factor is from AP-42, Tables 1.1-4 and 1.1-5 (09/98). Assume the ESP control efficiency is 99%. PM10 emission factor is filterable PM10 emission factor and condensable PM emission factor combined.

^c The SO₂ emission factor is based on the emission limit in 40 CFR 52.145(d) and the

^d NOx and CO emission factors are based on the emission limit in PSD permit AZ 08-01.

^e VOC emission factors are from AP-42, Tables 1.1-19 (09/98).

The heating value of the coal used at this plant is 21.562 MMBtu/ton, provided by the Permittee.

Methodology

PTE of PM10, VOC, and CO (tons/yr) = Max. Heat Input (MMBtu/hr) / 21.562 MMBtu/ton x Emission Factor (lbs/ton) x 8760 hrs/yr x 1 ton/2,000 lbs

PTE of PM, SO₂, and NOx (tons/yr) = Max. Heat Input (MMBtu/hr) x Emission Factor (lbs/MMBtu) x 8760 hr/yr x 1 ton/2,000 lbs

**Appendix A: Emission Calculations
Criteria Pollutant Emissions from
the Coal Fired Boiler U2**

**Company Name: Navajo Generating Station
Address: 5 miles east of Page, off U.S. Highway 98, Page, AZ 86040
Permit No.: NN-ROP-05-06**

Max. Heat Input Capacity
MMBtu/hr

7,725

Ash Content (A)

13.5 % (provided by the source)

Emission Factor	Pollutant					
	PM ^a	PM10 ^b	SO ₂ ^c	NO _x ^d	VOC ^e	CO ^d
	0.06	0.3305 (2.3A*0.01+0.02)	0.10	0.24	0.06	0.42
	(lbs/MMBtu)	(lbs/ton)	(lbs/MMBtu)	(lbs/MMBtu)	(lbs/ton)	(lbs/MMBtu)
Potential to Emit in (tons/yr)	2,030	519	3,384	8,121	94.2	14,211

^a PM emission factor is the emission limit in 40 CFR 49.20.

^b PM10 emission factor is from AP-42, Tables 1.1-4 and 1.1-5 (09/98). Assume the ESP control efficiency is 99%. PM10 emission factor is filterable PM10 emission factor and condensable PM emission factor combined.

^c The SO₂ emission factor is based on the emission limit in 40 CFR 52.145(d) and the

^d NO_x and CO emission factor is based on the emission limit in the PSD permit.

^e VOC emission factors are from AP-42, Tables 1.1-19 (09/98).

The heating value of the coal used at this plant is 21.562 MMBtu/ton, provided by the Permittee.

Methodology

PTE of PM10, VOC, and CO (tons/yr) = Max. Heat Input (MMBtu/hr) / 21.562 MMBtu/ton x Emission Factor (lbs/ton) x 8760 hrs/yr x 1 ton/2,000 lbs

PTE of PM, SO₂, and NO_x (tons/yr) = Max. Heat Input (MMBtu/hr) x Emission Factor (lbs/MMBtu) x 8760 hr/yr x 1 ton/2,000 lbs

**Appendix A: Emission Calculations
Criteria Pollutant Emissions from
the Coal Fired Boiler U3**

**Company Name: Navajo Generating Station
Address: 5 miles east of Page, off U.S. Highway 98, Page, AZ 86040
Permit No.: NN-ROP-05-06
Date: August 18, 2010**

Max. Heat Input Capacity
MMBtu/hr

7,725

Ash Content (A)

13.5 % (provided by the source)

Emission Factor	Pollutant					
	PM ^a	PM10 ^b	SO ₂ ^c	NOx ^d	VOC ^e	CO ^d
	0.06	0.3305	0.10	0.24	0.06	0.42
	(lbs/MMBtu)	(2.3A*0.01+0.02) (lbs/ton)	(lbs/MMBtu)	(lbs/MMBtu)	(lbs/ton)	(lbs/ton)
Potential to Emit in (tons/yr)	2,030	519	3,384	8,121	94.2	14,211

^a PM emission factor is the emission limit in 40 CFR 49.20.

^b PM10 emission factor is from AP-42, Tables 1.1-4 and 1.1-5 (09/98). Assume the ESP control efficiency is 99%. PM10 emission factor is filterable PM10 emission factor and condensable PM emission factor combined.

^c The SO₂ emission factor is based on the emission limit in 40 CFR 52.145(d) and the

^d NOx and CO emission factor is based on the emission limit in the PSD permit.

^e VOC emission factors are from AP-42, Tables 1.1-19 (09/98).

The heating value of the coal used at this plant is 21.562 MMBtu/ton, provided by the Permittee.

Methodology

PTE of PM10, VOC, and CO (tons/yr) = Max. Heat Input (MMBtu/hr) / 21.562 MMBtu/ton x Emission Factor (lbs/ton) x 8760 hrs/yr x 1 ton/2,000 lbs

PTE of PM, SO₂, and NOx (tons/yr) = Max. Heat Input (MMBtu/hr) x Emission Factor (lbs/MMBtu) x 8760 hr/yr x 1 ton/2,000 lbs

**Appendix A: Emission Calculations
PTE Summary**

Company Name: Navajo Generating Station

Address: 5 miles east of Page, off U.S. Highway 98, Page, AZ 86040

Permit No.: NN-ROP-05-06

Limited Potential To Emit after Control

Emission Units	PM	PM10	SO₂	NO_x	VOC	CO	Total HAPs
Boiler U1	2,030	519	3,384	8,121	94.2	14,211	125
Boiler U2	2,030	519	3,384	8,121	94.2	14,211	125
Boiler U3	2,030	519	3,384	8,121	94.2	14,211	125
Auxiliary Boilers	60.7	60.7	1,444	442	3.68	92.0	11.1
Coal Handling Operations	10.66	6.44	-	-	-	-	-
Coal Piles (Fugitive)	5.43	2.57	-	-	-	-	-
Limestone Handling Operations	4.61	2.98	-	-	-	-	-
Limestone Piles (Fugitive)	4.60	2.17	-	-	-	-	-
Fly Ash Handling Operations	29.2	29.2	-	-	-	-	0.01
Soda Ash/Lime Handling Operations	0.26	0.26	-	-	-	-	-
Cooling Towers	19.2	19.2	-	-	-	-	-
Unpaved Roads (Fugitive)	591	153	-	-	-	-	-
Emergency Generators	0.74	0.74	0.69	10.5	0.83	2.26	Negligible
Other Insignificant Activities*	5.00	5.00	-	5.00	5.00	-	Negligible
Total PTE (tons/yr)	6,822	1,838	11,595	24,819	292	42,727	387

*Note: This is an estimate on the PM/PM10 emissions from the welding and blasting operations, and VOC/HAP emissions from the parts cleaning, surface coating operations, and the storage tanks.

Appendix B:
NGS CAM Plan

**COMPLIANCE ASSURANCE MONITORING PLAN
WET LIMESTONE SCRUBBER AND ELECTROSTATIC PRECIPITATOR
FOR PARTICULATE MATTER CONTROL
NAVAJO GENERATING STATION
UNITS 1, 2, AND 3**

I. Background

A. Emissions Unit

Description:	Pulverized Coal-Fired Boilers
Identification:	U1, U2, and U3
Facility:	Navajo Generating Station
	Page, Arizona

B. Applicable Regulation(s) and Emission Limit(s)

Regulation No.:	Federal Implementation Plan
Emission Limits:	
Particulate Matter:	0.060 lb/MMBtu on a plant-wide basis, as averaged from at least 3 sampling runs, each at a minimum of 60 minutes in duration, each collecting a minimum sample of 30 dry standard cubic feet
Monitoring Requirements:	Annual particulate matter mass emission test

C. Control Technology

Electrostatic Precipitator and Wet Limestone Scrubber

II. Monitoring Approach

The key elements of the monitoring approach are presented in Table 1.

A. Background

The emission units that are addressed in this Compliance Assurance Monitoring (CAM) plan include three 750 megawatt (net) pulverized coal-fired boilers. Each boiler is equipped with an electrostatic precipitator (ESP) for particulate control and a wet limestone scrubber for sulfur dioxide (SO₂) removal. The wet limestone scrubbers also remove particulates from the flue gas.

Table 1. Monitoring Approach

	Electrostatic Precipitator	Wet Limestone Scrubber¹	Wet Limestone Scrubber¹	Wet Limestone Scrubber¹
I. Indicator	Number of chambers/fields in service	Number of spray levels in service	Wet limestone scrubber exhaust temperature	Wet limestone scrubber on/off
Measurement Approach	The number of chambers/fields in service is monitored and logged on a continuous basis.	The number of wet limestone scrubber spray levels in service is monitored on a continuous basis.	The wet limestone scrubber exhaust temperatures are monitored at the absorber outlets prior to the stack using a J-type thermocouple.	The wet limestone scrubber on/off signal is monitored on a continuous basis.
II. Indicator Threshold	Please see Section II.C below.	Please see Section II.C below.	Please see Section II.C below.	Please see Section II.C below.
III. Performance Criteria	The monitoring system consists of status bits from the Automatic Voltage Controllers (AVCs), supplemented with operating logs, which indicate the number of chambers/fields that are operational.	The monitoring system consists of a signal indicating the number of wet limestone scrubber spray levels that are operational.	The monitoring system consists of a J-type thermocouple at the wet limestone scrubber exhaust with a minimum accuracy of ± 5 percent.	The monitoring system consists of an on/off signal indicating that the wet limestone scrubber is operational.
A. Verification of Operational Status	Not Applicable	Not Applicable	Not Applicable	Not Applicable
B. QA/QC Practices and Criteria	Monitoring equipment will be maintained and operated according to manufacturer recommendations.	The wet limestone scrubber spray level signal will undergo an annual verification check.	The thermocouple will undergo a quarterly verification check using a standard temperature indicator.	The wet limestone scrubber on/off signal will undergo an annual verification check.
C. Monitoring Frequency	Continuous	Continuous	Continuous	Continuous
D. Data Collection Procedures	The AVC status bits are recorded by the BHA WinDAC Data Acquisition and Control Software, and supplemented with operating logs.	The wet limestone scrubber spray level signal will be recorded on a continuous basis by the data acquisition handling system.	The wet limestone scrubber exhaust temperature will be recorded as an hourly average by a data acquisition handling system.	The wet limestone scrubber on/off signal will be recorded on a continuous basis by the data acquisition handling system.
E. Averaging Period	Not Applicable	Not Applicable	1-Hour Average	Not Applicable

¹ A unit wet limestone scrubber consists of an "A" and "B" absorber.

B. Rationale for Selection of Performance Indicators

Number of ESP Fields in Service

Each ESP consists of 16 chambers, which each have 6 fields, yielding a total of 96 fields per ESP unit. In an ESP, electric fields are established by applying a direct-current voltage across a pair of electrodes: a discharge electrode and a collection electrode. Particulate matter suspended in the gas stream is electrically charged when it passes through the electric field surrounding each discharge electrode. The negatively charged particles then migrate toward the positively charged collection electrodes. The particulate matter is separated from the gas stream by retention on the collection electrode.

The ESP is designed with automatic voltage controllers that aggressively push each transformer to the highest possible power level at all times and under any load condition. Therefore, it is the number of electric chambers/fields in service that impacts particulate removal efficiency and is the best performance indicator for the ESP.

Wet Limestone Spray Levels

Each wet limestone scrubber contains four spray levels. One level serves as a spare. 2-3 spray levels are typically operated depending upon the sulfur content of the coal and what is needed to maintain compliance with the 365 boiler operating day sulfur dioxide (SO₂) emission limit of 0.10 lb/MMBtu.

Wet Limestone Scrubber Exhaust Temperature

Each wet limestone scrubber is made up of two modules and normally operates with two spray levels in each module. The wet limestone scrubber removes particulate matter from the exhaust gas stream by wetting dust particles through contact with a scrubbing liquid and then collecting those wet particles for removal. When the exhaust gas stream comes into contact with the scrubbing liquid, it results in the dissipation of mechanical energy and a corresponding reduction in exhaust temperature. Therefore, monitoring the exhaust temperature will be a good indicator that the wet limestone scrubber is operating properly.

Wet Limestone Scrubber On/Off Signal

The wet limestone scrubbers were designed to be taken out of service for short periods of time for maintenance purposes. It has been demonstrated that if one wet limestone scrubber is bypassed, the plant-wide average particulate emission limit of 0.060 lb/MMBtu can still be met.

C. Rationale for Selection of Indicator Threshold

Excursion Criteria

An excursion is defined as the occurrence of any one or more of the following events:

1. When an ESP unit is operating with more than 3 chambers (18 fields) out of service during normal operation of the boiler;
2. When an ESP unit is operating with more than one chamber (6 fields) out of service and less than 2 spray levels are operating in the wet limestone scrubber associated with the same boiler, during normal operation of the boiler;
3. When the wet limestone scrubber exhaust temperatures exceed 145°F for more than one unit, on a 1-hour average basis, during normal operation of the boilers;
4. When the wet limestone scrubber is bypassed for more than one unit, for at least 1 hour, during normal operation of the boilers.

When an excursion occurs, corrective action will be initiated beginning with an evaluation of the occurrence to determine the action required to correct the situation. Once the cause of the occurrence is determined, the situation will be remedied as expeditiously as practicable.

Number of ESP Fields in Service and Wet Limestone Scrubber Spray Levels (Excursion Criteria #1 and 2)

On April 5, 2000, a performance test was conducted during which 4 precipitator chambers (i.e., 24 fields) were out of service. The performance test results are included in Attachment 1. The measured particulate matter emissions over a 1.5-hour period were 0.032 lb/MMBtu, which is well below the plant-wide average particulate matter emission limit of 0.060 lb/MMBtu. To provide adequate compliance assurance, a lesser number of chambers and fields (3 chambers or 18 fields) will be used as a threshold to identify an excursion. To provide additional compliance assurance, a second criterion involving a combination of the number of fields in service and the number of wet limestone scrubber spray levels will be used to address a possible situation in which both the wet limestone scrubber and ESP are not operating at the maximum control levels.

SRP is willing to conduct performance testing in accordance with Title 40 of the Code of Federal Regulations (40 CFR) Part 64, Section (d), if EPA Region 9 and/or NNEPA requires additional assurance that compliance with the particulate matter emission limits can be achieved when more than 3 chambers of an Electrostatic Precipitator (ESP) unit are out of service. The

testing would be conducted at the first possible opportunity; i.e., at the earliest time at which more than 3 chambers are out of service on an ESP unit.

Wet Limestone Scrubber Exhaust Temperature (Excursion Criteria #3)

The selected indicator threshold for the wet limestone scrubber exhaust temperature is no more than 145 degrees Fahrenheit (°F) on a 1-hour average, as measured by a J-type thermocouple, during normal operation. This temperature threshold was selected based upon the manufacturer's specified operating permissive.

Wet Limestone Scrubber On/Off Signal (Excursion Criteria #4)

The selected indicator threshold is no more than one unit wet limestone scrubber bypassed for at least one hour. This indicator threshold was selected based on upon performance test data collected during various operating scenarios, as described below:

- Attachment 2 contains a summary of particulate matter performance tests conducted between 2000 and 2009 when the wet limestone scrubbers were operating. The highest 3-hour average particulate matter emission rate from any single unit that was measured during any of the performance tests conducted during this period was 0.047 lb/MMBtu.
- Attachment 3 contains a summary of performance tests that were conducted in which particulate matter was measured when the wet limestone scrubber was bypassed. The highest particulate matter emission rate from any one unit that was measured during any of the tests was 0.067 lb/MMBtu.

Therefore, a conservative estimate of the plant-wide average emission rate can be developed for a situation in which one of the wet limestone scrubbers is bypassed. If a single bypassed unit is assumed to emit the highest tested emission rate of 0.067 lb/MMBtu, and the other two units that are not bypassed are conservatively assumed to emit the highest tested emission rate of 0.047 lb/MMBtu, the plant-wide average emission rate would be 0.054 lb/MMBtu, which is less than the plant-wide average particulate emission limit of 0.060 lb/MMBtu. Therefore, this demonstrates that if no more than one unit wet limestone scrubber is bypassed, compliance with the plant-wide emission limit of 0.060 lb/MMBtu can be achieved.

III. Recordkeeping

All excursions will be documented including when the excursion occurred, the cause for the excursion, and corrective actions taken to remedy the excursion.

Attachment 1: April 2000 Performance Test Results

Navajo Generating Station Particulate Test Results

Purpose: 4 Chambers Out of Service - Special Particulate test with absorbers in service

Date: 4/5/2000

Unit: 2

SUMMARY

Run #	Run Time	Particulate Results		% Stack Moisture	Isokinetics
		lbs/hour	lbs/mmBTU		
1	0923-1058	245.8	0.032	14.2	100.3
2					
3					
Average					

CALCULATIONS

Run #	Coal Burn Rate	Coal Data		Calculated Heat Rate (BTUs)
	(lbs/hr)	Total Moisture (%)	BTU/LB (dry)	
1	719,850	12.49	12,179	7,672,048,212
2				
3				

Attachment 2. 2005-2009 Performance Test Results

PARTICULATE MATTER PERFORMANCE TEST RESULTS
Navajo Generating Station

Year	Unit 1 (lb/MMBtu)	Unit 2 (lb/MMBtu)	Unit 3 (lb/MMBtu)	Plant-wide Average (lb/MMBtu)	Emission Limit (lb/MMBtu)
2000	0.011	0.013	0.011	0.011	0.060
2001	0.020	0.012	0.007	0.013	0.060
2002	0.025	0.021	0.013	0.020	0.060
2003	0.019	0.014	0.018	0.017	0.060
2004	0.013	0.020	0.031	0.021	0.060
2005	0.036	0.019	0.032	0.029	0.060
2006	0.014	0.018	0.021	0.017	0.060
2007	0.015	0.013	0.018	0.015	0.060
2008	0.013	0.019	0.047	0.026	0.060
2009	0.013	0.008	0.009	0.010	0.060

Attachment 3. Wet Limestone Scrubber Bypass Test Results

PARTICULATE MATTER PERFORMANCE TEST RESULTS
WET LIMESTONE SCRUBBER BYPASS OPERATION
Navajo Generating Station

Unit	Date	Particulate Matter (lb/MMBtu)
3	7/15/2003	0.051
3	11/11/2003	0.067
2	4/7/2004	0.017
2	6/21/2004	0.062
1	5/5/2005	0.022
1	6/13/2005	0.044

Appendix C:
Public Notice



Public Notice

REOPENING OF A PART 71 PERMIT
NAVAJO GENERATING STATION
A COAL FIRED POWER PLANT
LOCATED IN PAGE, ARIZONA



The Navajo Nation Environmental Protection Agency (NNEPA), Navajo Air Quality Control Program (NAQCP), Operating Permit Program (OPP) Section is accepting written comments on reopened portions of the Part 71 permit for Navajo Generating Station, located 5 Miles East of Page, off U.S. Highway 98, Page, Arizona 86040 on the Navajo Nation. Navajo Generating Station is an existing 2,250 megawatt power plant with three (3) coal-fired boilers.

U.S. EPA promulgated a Source-Specific Federal Implementation Plan (FIP) for the Navajo Generating Station, codified in 40 CFR § 49.24, which became effective on April 5, 2010. The FIP established federally enforceable emissions limits for Sulfur Dioxide and Particulate Matter (PM), as well as opacity limits for the boiler stacks, coal storage and handling, and other dust generating activities. The FIP also established related requirements for testing, monitoring, recordkeeping, and reporting. The PM emission limit triggered Compliance Assurance Monitoring (CAM), codified in 40 CFR § 64, which requires continuous monitoring of Electrostatic Precipitators and Wet Limestone Scrubbers, the PM control devices for each boiler. The reopened permit provisions are II.A (Federal Implementation Plan Requirements), II.C (CAM Requirements), and IV.C (Compliance Certification).

NNEPA will consider comments only on the provisions of the permit that are reopened, as these are the only portions of the permit affected by this proposed action. Written comments, written requests for a public hearing, written requests for notification of the final decision regarding this permit action, or inquiries or requests for additional information regarding this permit action may be submitted to Charlene Nelson (Program Supervisor) at NAQCP, OPP Section, P.O. Box 529, Fort Defiance, AZ 86504. **Written comments and/or written requests must be received by 5:00 p.m., July 6, 2011.** NNEPA will consider these written comments prior to issuing a final permit decision.

If NNEPA finds a significant degree of public interest, a public hearing will be held. NNEPA will send notification of the final permit decision to the permittee and to each person who has submitted written comments or a written request for notification of the final decision.

The reopened provisions of the permit and statement of basis are available for review at NNEPA, NAQCP, OPP Section, Fort Defiance, AZ 86504. Viewing hours are from 8:00 a.m. to 4:30 p.m., Monday through Friday (except holidays). Inquiries or requests for additional information, including copies of the draft permit and statement of basis, should be directed to Charlene Nelson (Program Supervisor) at the above address, by phone at (928) 729-4247, or by e-mail sent to charlenenelson@navajo.org.

Appendix D:
Public Notice of a Hearing



Public Notice of a Hearing

AND EXTENSION OF THE PUBLIC COMMENT PERIOD

REOPENING OF A PART 71 PERMIT

NAVAJO GENERATING STATION

A COAL FIRED POWER PLANT

LOCATED IN PAGE, ARIZONA



The Navajo Nation Environmental Protection Agency ("NNEPA"), Navajo Air Quality Control Program ("NAQCP"), Operating Permit Program ("OPP") is conducting a Public Hearing on August 29, 2011 on the reopened portions of the Part 71 permit for Navajo Generating Station ("NGS"). NNEPA also is extending the public comment period on the reopened portions of the permit until August 29, 2011. NGS is located 5 miles east of Page, off U.S. Highway 98, P.O. Box 850, Page, Arizona 86040 on the Navajo Nation. NGS is an existing 2,250 megawatt power plant with three coal-fired boilers.

U.S. EPA promulgated a Source-Specific Federal Implementation Plan ("FIP") for the Navajo Generating Station, codified in 40 CFR § 49.24, which became effective on April 5, 2010. The FIP established federally enforceable emissions limits for Sulfur Dioxide and Particulate Matter ("PM"), as well as opacity limits for the boiler stacks, coal storage and handling, and other dust generating activities. The FIP also established related requirements for testing, monitoring, recordkeeping, and reporting. The PM emission limit triggered Compliance Assurance Monitoring ("CAM"), codified in 40 CFR § 64, which requires continuous monitoring of electrostatic precipitators and wet limestone scrubbers, the PM control devices for each boiler. The reopened permit provisions are II.A (FIP Requirements), II.C (CAM Requirements), and IV.C (Compliance Certification).

The public comment period for the Draft Reopened Part 71 Permit began June 6, 2011 and initially concluded July 6, 2011. The Public Notice was published in the Navajo Times, Arizona Daily Sun, and Lake Powell Chronicle and was broadcast over the radio through KXAZ in Page, Arizona, and KTNN and KWRK in Window Rock, Arizona. An extension to the public comment period was requested and granted until July 15, 2011. During the public comment period a Public Hearing was requested and is being granted pursuant to the NNEPA Uniform Regulations § 209(a). **A Public Hearing on the Draft Reopened Part 71 Permit will be held from 4 pm to 8 pm Arizona Time (5 pm to 9 pm Mountain Standard Time) on August 29, 2011 at the Community Room in the Page Police Department, Public Safety Facility, 808 Coppermine Road, Page, Arizona, 86040.** Any person may provide written or oral comments, in English or Diné, and data pertaining to the reopened portions of the Part 71 Permit at the Public Hearing. English-Diné translation services will be provided at the Public Hearing. The Public Hearing will be conducted in accordance with Uniform Regulations § 209.

NNEPA will consider comments only on the provisions of the permit that are reopened, as these are the only portions of the permit affected by this proposed action. Written comments, written requests for notification of the final decision regarding this permit action, or inquiries or requests for additional information regarding this permit action may be submitted to Charlene Nelson (Program Supervisor) at NAQCP, OPP Section, P.O. Box 529, Fort Defiance, AZ 86504. NNEPA will accept written comments and/or written requests until the conclusion of the Public Hearing on August 29, 2011. NNEPA will consider these comments prior to issuing a final permit decision.

The reopened provisions of the permit and statement of basis are available for review at NNEPA, NAQCP, OPP Section, Route 112 North, Building 2837, Fort Defiance, AZ 86504. Viewing hours are from 8:00 a.m. to 4:30 p.m., Monday through Friday (except holidays). Inquiries or requests for additional information, including copies of the draft permit, statement of basis, fact sheet, or application, should be directed to Charlene Nelson (Program Supervisor) at the above address, by phone at (928) 729-4247, or by e-mail sent to charlenenelson@navajo-nsn.gov.

Appendix E:
Response to Comments



Navajo Nation Environmental Protection Agency – Air Quality Control/Operating Permit Program
Post Office Box 529, Fort Defiance, AZ 86504 • Rt.112 North, Bldg # 2837
Telephone (928) 729-4096, Fax (928) 729-4313

Detailed Information

Permitting Authority: NNEPA

County: Coconino

State: Arizona

AFS Plant ID: 04-005-N0423

Facility: Navajo Generating Station

Document Type: PERMIT REOPENING - RESPONSES TO COMMENTS

PART 71 FEDERAL OPERATING PERMIT
PERMIT REOPENING - RESPONSE TO COMMENTS

Navajo Generating Station
Permit No. NN-ROP-05-06-A

NAVAJO NATION ENVIRONMENTAL PROTECTION AGENCY

**Response to Comments on Proposed Revisions to Reopened Draft Part 71 Operating Permit
and**

Draft Statement of Basis for Navajo Generating Station

Permit # NN-ROP-05-06

October 28, 2011

Beginning June 6, 2011, the Navajo Nation Environmental Protection Agency ("NNEPA") had notices published in the Arizona Daily Sun of Flagstaff, Arizona, the Lake Powell Chronicle of Page, Arizona, and the Navajo Times of Window Rock, Arizona stating that NNEPA was accepting comments on the reopened portions of the Part 71 Permit for Navajo Generating Station ("NGS"), a coal fired power plant located 5 miles east of Page, Arizona, off U.S. Highway 98, in Coconino County, Arizona. The Public Notice also was broadcast over the radio through KXAZ in Page, Arizona, and KTNN and KWRK in Window Rock, Arizona. The notice provided information on how the public could review the reopened provisions of the permit and other documentation, and informed interested parties that they would have thirty (30) days to provide comments on the reopened provisions of the permit.

The public comment period for the Draft Reopened Part 71 Permit initially concluded July 6, 2011. On July 1, 2011, Mr. Robert Talbot on behalf of Salt River Project ("SRP"), the operating agent for NGS, mailed comments on reopened portions of the draft Part 71 permit. An extension to the public comment period was requested on July 1, 2011, and the extension was granted until July 15, 2011. On July 15, 2011, Mr. John Barth, on behalf of six groups, submitted comments on the reopened portions of the draft Part 71 permit. Mr. Barth also requested a public hearing. The request was granted pursuant to the NNEPA Uniform Regulations § 209(a), and the public hearing was held on August 29, 2011 in Page, Arizona. NNEPA also extended the comment period and accepted written comments until the conclusion of the public hearing. There were no oral or written comments submitted during the public hearing. A transcript of the public hearing is available to the public upon request.

The written comments of Mr. Barth are listed in Comments 1 through 29. The written comments of SRP are listed in Comments 30 through 31. This Response to Comments document provides responses to all of these comments. When permit language is included in the response, bolded language indicates additions to the permit and language with a line through it has been deleted from the permit.

Comments from John M. Barth on behalf of Diné CARE, San Juan Citizens Alliance, Sierra Club, Center for Biological Diversity, National Parks Conservation Association, and Grand Canyon Trust (Comments 1 through 29)

Comment 1:

The re-opened Title V permit fails to ensure continuous compliance with opacity limits. John Barth Comments at page 1.

Comment 2:

We are aware of no documentation in the administrative record for this Title V permit amendment proving that “excess opacity” at NGS is “due to” condensed uncombined water vapor. Before including such a broad exemption from compliance with the opacity limits, NGS must first conclusively demonstrate that condensed uncombined water vapor or droplets are causing excess opacity and must conclusively quantify the extent to which such condensed uncombined water droplets are causing such an exceedance of the opacity limits. Without such conclusive proof, inclusion of this exemption in the NGS Title V permit is arbitrary and capricious. In the even such documentation exists, it should be produced and available to all of the public and a new public comment period should be established prior to finalization of the draft permit. John Barth Comments at 1.

Comment 3:

In the event the Navajo Nation refuses to remove [the exemption for excess opacity due to condensed uncombined water vapor], condition II.A.4.d. should be amended to add the word “uncombined” after the word “condensed.” John Barth Comments at 2.

Comment 4:

NGS should be required to prove that its antiquated ESPs can continuously meet the 20% opacity limit absent any interference from uncombined condensed water vapor. John Barth Comments at 2.

Comment 5:

The startup, shutdown, malfunction, and SO₂ absorber module exemptions are not legally or technically justified and are contrary to applicable requirements. John Barth Comments at 2.

Comment 6:

There is no documentation in the administrative record for this permit amendment proving that an exemption from opacity limitations “during absorber upset transition periods” is legally or technically justified at NGS. Before including such a broad exemption from compliance with the opacity limits, the Navajo Nation must describe the nature of these “absorber upset transition periods” and why an exemption from opacity limits is legally and technically justified. John Barth Comments at 2.

Comment 7:

In the event such documentation exists, it should be produced and available to all of the public and a new public comment period should be established prior to finalization of the draft permit. John Barth Comments at 2.

Comment 8:

We object to the inclusion of these blanket “startup” “shutdown” and “malfunction” (“SSM”) exemptions in the draft Title V permit. Blanket SSM provisions are illegal and should be removed from Title V permits. John Barth Comments at 2 - 3.

Response to Comments 1 through 8:

NNEPA does not have the authority to make the requested changes to the reopened Part 71 permit. The opacity requirements at issue come from the Federal Implementation Plan (“FIP”) for NGS that U.S. EPA promulgated on March 5, 2010, *see* 75 Fed. Reg. 10174, and these requirements were codified in 40 CFR § 49.24 and were recodified in § 49.5513, *see* 76 Fed. Reg. 23879. They are the applicable requirements for NGS, *see* 40 CFR § 71.2, which must be incorporated into the permit, *see* 40 CFR § 71.6, and there is no mechanism in the Part 71 process that allows the permitting authority to make changes to federally applicable requirements.

Moreover, any comments on the NGS FIP were required to be made during the public comment period on the proposed FIP, which took place from September 12, 2006 through November 6, 2006. *See* 71 Fed. Reg. 53639. EPA also held a public informational workshop and hearing on October 5, 2006. Once the final rule was published on March 5, 2010, it was reviewable only pursuant to Clean Air Act § 307, 42 U.S.C. § 7607, which requires a petition for review of a rule to be made within 60 days of the rule’s publication and allows review only with regard to objections made during the public comment period.

For both of these reasons, therefore, NNEPA may not make any changes during this permit reopening to the underlying applicable requirements contained in the FIP, and instead must incorporate these requirements into the current Part 71 permit, pursuant to 40 CFR § 71.7(f). For further information about the FIP rulemaking, please refer to

Federal Docket EPA-R09-OAR-2006-0185, and please refer to Condition II.A.1.a for the definition of "absorber upset transition period." No changes will be made to referenced Conditions II.A.1.a, II.A.2.d, II.A.4.d, II.A.7.b, and II.A.7.c.

Comment 9:

The Title V permit fails to require prompt reporting of excursions/exceedances/violations. John Barth Comments at 3.

Comment 10:

The draft permit fails to require that the operator report any excursions or exceedances of the component monitoring required by the CAM plan. As such, the public has no way of knowing whether there have been excursions/exceedances detected by the CAM plan. Thus, the signatories request that the draft permit should be amended to require the operator to report as part of its monthly excess emission reports ("EERS") any excursions or exceedances detected as part of the CAM plan. John Barth Comments at 3.

Comment 11:

Condition IV.C. of the draft Title V Permit only requires compliance certification reporting once every six months. This does not constitute prompt reporting of permit deviations, as required by Title V permit regulations. John Barth Comments at 3.

Comment 12:

It would make sense for the Navajo Nation to require written reporting of permit deviations related to emission limits at least within two to ten days so that public health and safety can be protected and the applicable requirements can be met. This includes any excursions/exceedances detected by a CAM plan. John Barth Comments at 3.

Response to Comments 9 through 12:

The purpose of the Title V permit reopening for NGS is to incorporate new applicable requirements into the existing Title V permit, pursuant to 40 CFR § 71.7(f). The existing permit expires July 3, 2013. The unopened terms and conditions of the existing permit remain in effect until that date and are not subject to public comment unless and until they are proposed to be revised. Comments 9 through 12 either pertain to unopened terms and conditions of the permit that are not subject to comment or pertain to reopened terms and conditions that are consistent with the applicable requirements and so are not being revised.

An exceedance "is detected by monitoring that provides data in terms of an emission limitation or standard and that indicates that emissions . . . are greater than the applicable emission limitation." 40 CFR § 64.1. In contrast, an excursion is "a departure from an indicator range established for monitoring under this part [64], consistent with any

averaging period specified for averaging the results of the monitoring.” *Id.* A deviation, as defined by Condition III.C.1.c., means “any situation in which an emission unit fails to meet a permit term or condition.” A deviation can be, but is not necessarily, a violation. An exceedance, as defined in 40 CFR § 64.1, is included in the definition of a deviation. Condition III.C.1.c.iv.

The claim that the permit fails to require prompt reporting of excursions, exceedances, and violations is incorrect. Using the definition of “prompt” provided by Condition III.C.2.b., “for emissions of a hazardous air pollutant...the report must be made...within 24 hours,” and “for emissions of any regulated air pollutant excluding a hazardous air pollutant or a toxic air pollutant that continue for more than two hours in excess of permit requirements, the report must be made...within 48 hours of the occurrence.” In addition, “for all other deviations from permit requirements, the report shall be submitted with the semi-annual monitoring report.” Also in accordance with Condition III.C.3, a written notice must be submitted within ten working days of the occurrence for the first two cases listed above, and all deviations must be reported in the six-month monitoring reports. Excursions are required to be reported in the six-month monitoring reports under 40 CFR § 64.9. Condition II.C.9.a.i requires that “the number, duration, and cause of excursions or exceedances, and corrective actions” be included in the six-month monitoring reports. Lastly, all “possible exceptions to compliance” when an excursion or exceedance has occurred must be reported in the Compliance Certifications pursuant to Condition IV.C.

Excess emissions with regard to any emission limit in the permit require notification to NNEPA and U.S. EPA within one business day and a written report within ten working days. Condition II.A.4.b. The EPA Regional Administrator must be notified within one business day if an exceedance of the NAAQS has occurred as detected by a required monitor. Condition II.A.4.c. Excess Emission Reports are quarterly, not monthly, in reference to the FIP, and report SO₂ and opacity as measured by COMS. Condition II.A.4.d. Excess Emission Reports are also required under the PSD Permit AZ 08-01, but these reports are submitted semi-annually, not monthly, and report CO and NO_x. Condition II.B.7.e.

In summary, the existing reporting requirements, both in the reopened Title V permit and the existing Title V permit, provide “prompt” reporting of deviations, exceedances, and violations. Excursions are reported in the six-month monitoring reports and in Compliance Certifications. No changes will be made as a result of this comment.

Comment 13:

The Draft Title V Permit fails to require sufficient periodic monitoring. John Barth Comments at 4.

Comment 14:

Permitting authorities must ensure that a Title V Permit contain monitoring that assures compliance with the terms and conditions of the permit. John Barth Comments at 4.

Comment 15:

In this case, the draft Title V Permit fails to contain emission limits or monitoring requirements that ensure compliance with underlying particulate matter limits for the three coal-fired boilers. The Title V Permit should establish pound per hour emission limits, ton per year emission limits, and pound per million btu emission limits. The draft permit must also prescribed monitoring to ensure compliance with these emission limits. John Barth Comments at 4.

Response to Comments 13 through 15:

The demand that “a Title V Permit contain monitoring that assures compliance with the terms and conditions of the permit” and the claims that “the draft Title V permit fails to require sufficient periodic monitoring” and “fails to contain emission limits or monitoring requirements that ensure compliance with underlying particulate matter limits for the three coal-fired boilers” are too vague to explain why the monitoring required by the permit is inadequate. For example, the commenter fails to indicate the type of monitoring at issue, what is being monitored, or even the specific terms and conditions of the permit. There are many different types of monitoring prescribed through distinct mechanisms, *e.g.*, FIP, PSD, and NSPS, and the NGS draft Part 71 permit contains several types of monitoring requirements.

Moreover, as explained in Response to Comments 1 through 8, the codified FIP requirements, the emission limitations and monitoring contained therein, and any other applicable requirements must be incorporated into the Part 71 permit. The FIP explicitly states the emission limitation for particulate matter. The Part 71 permit contains these limits, 0.060 lb/MMBtu on a plant-wide basis, in Condition II.A.2.b. Statement of Basis § 3.b explains that because NGS relies on control equipment to meet the PM emission limit, the permittee is subject to a separate set of monitoring requirements, namely, CAM. These monitoring requirements are contained in the CAM plan in Condition II.C of the permit. The permittee must also comply with additional monitoring requirements prescribed by the FIP, including the operation, calibration, and maintenance of ambient air monitors for PM_{2.5} and PM₁₀. *See* Condition II.A.3.f. The comments do not address these requirements. No changes will be made as a result of these comments.

Comment 16:

Furthermore, to the extent the Title V Permit relies on compliance assurance monitoring (“CAM”) requirements to meet particulate matter emission limits, it is unclear how meeting CAM will ensure compliance with applicable particulate matter emission limits. John Barth Comments at 4.

Comment 17:

The CAM plan for particulate matter fails to ensure continuous compliance with the PM emission limit. John Barth Comments at 4.

Comment 18:

The draft Title V permit allows the operator to demonstrate compliance with particulate limits by using a compliance assurance monitoring plan. We object to the CAM plan provisions of the Title V permit. John Barth Comments at 5.

Comment 19:

First, there is little technical support for the findings of the CAM plan. John Barth Comments at 5.

Comment 20:

The draft permit's CAM plan does not meet the requirements of the Title V program because it does [not] provide sufficiently reliable information for determining compliance. For example, the CAM plan assumes compliance with particulate matter emission limitations unless there are 3 chambers (18 fields) are out of service. However, this assumption is based on a single sampling event (April 5, 2000), conducted at a single unit (Unit 1) over 11 years ago. This is not a technically sound basis upon which to reach a determination of compliance with PM limits. Moreover, NGS also argues that it can meet PM limits even when the wet scrubbers have been bypassed. However, NGS's own data shows that Unit 3 (11/11/2003) and Unit 2 (6/21/2004) both exceeded PM limits during such bypass. John Barth Comments at 5.

Comment 21:

The Clean Air Act Title V program requires stationary sources, such as NGS, to prove continuous compliance with its emission limits, such as particulate matter. John Barth Comments at 5.

Comment 22:

Specifically, the draft Title V Permit provides for monitoring that is too infrequent to ensure continuous compliance with the PM emission limit. The Title V Permit only requires annual testing for particulate matter emissions, which can hardly to serve to ensure compliance with the emission limits. John Barth Comments at 4.

Response to Comments 16 through 22:

Pursuant to 40 CFR § 64.3, the monitoring design criteria for CAM must “provide a *reasonable assurance of compliance* with emission limitations or standards for the anticipated range of operations at a pollutant-specific emissions unit” (emphasis added). Since Units 1, 2, and 3 meet the applicability requirements of 40 CFR § 64.2(a), these Units must comply with CAM requirements and must follow the monitoring design criteria and submittal requirements.

The EPA Technical Guidance Document on CAM (“TGD CAM”) states that “monitoring is conducted to determine that control measures, once installed and otherwise employed, are properly operated and maintained so that they continue to achieve a level of control that complies with applicable requirements.” The monitoring requirements are meant to document continued operation within ranges of the performance indicators, indicate excursions, and respond to that the data so that the cause(s) behind the excursions may be corrected (TGD CAM at 1-1). In this way, CAM assures compliance with the particulate matter limitations for NGS. The CAM rule does not specify that “continuous compliance” be demonstrated, since this would imply that a “continuous compliance determination method,” e.g., CEMS, be utilized. See 40 CFR § 64.1.

The monitoring design criteria take into account several different considerations. Indicators must be established to assure compliance; these indicators must be ranges or conditions such that operation within these ranges or conditions provides a reasonable assurance of ongoing compliance, and the ranges must be defined in a measurable way. 40 CFR § 64.3(a). In addition, “in designing monitoring to meet the requirements...the owner or operator shall take into account site-specific factors including the applicability of existing monitoring equipment and procedures,...the reliability and latitude built into the control technology, and the level of actual emissions relative to the compliance limitation.” 40 CFR § 64.3(c). The TGD CAM at 2-26 explains that parameter data collected during performance testing, engineering assessments, manufacturers’ design criteria, and historical monitoring data may all be used to establish indicator ranges. The ranges are not expected to be formulated based only on performance testing.

With regard to the April 5, 2000 particulate matter testing in which 4 ESP chambers were out of service, the permittee has indicated that this is a very rare occurrence. Typically, during normal operation, all ESP chambers are in service. As a result, more recent data with multiple ESP chambers out of service was not available. Condition II.C.1.c requires that additional “testing be conducted at the first possible opportunity, i.e., the earliest time during which more than 3 chambers are out of service in an ESP unit.” It should be noted that in the test referenced above, the result was 0.032 lb/MMBtu, which is well below the emission limitation of 0.060 lb/MMBtu. To provide adequate compliance, the CAM plan also addresses a scenario in which ESP chambers and wet limestone scrubber spray levels are out of service at the same time, see Condition II.C.2.b. The submittal requirements in 40 CFR § 64.4(c)(1) state that, with regard to test data submitted to justify indicator ranges, “emission testing is not required to be conducted over the entire indicator range or range of potential emissions.” Therefore, CAM does not require NGS

to intentionally take ESP chambers out of service, or similarly to bypass wet limestone scrubbers solely to conduct testing for particulate matter.

Historic PM emissions from Units 1, 2, and 3 should be taken into consideration when designing monitoring to meet CAM requirements. 40 CFR § 64.3(c)(1). According to the test data submitted by NGS, over the past 11 years the PM emissions, averaged over Units 1, 2, and 3, range from 0.010 lb/MMBtu at a minimum to 0.029 lb/MMBtu at a maximum.

The indicators, ranges or conditions, performance criteria, and additional requirements are explained fully in Condition II.C. of the permit and Section 3.b. of the Statement of Basis, but a specific example of the technical support for Condition II.C is provided to respond to the above comments. Consider the higher of the two PM emission levels referenced in Comment 20, which states that "NGS's own data shows that Unit 3 (11/11/2003) and Unit 2 (6/21/2004) both exceeded PM limits during such bypass." The levels referred to are 0.067 lb/MMBtu for Unit 3 and 0.062 lb/MMBtu for Unit 2. CAM Plan submitted by NGS at Attachment 3. The higher of the two levels is 0.067 lb/MMBtu of PM from Unit 3 in 2003. The "Rationale for Selection of Indicator Threshold" notes that if the other two Units (Units 1 and 2) are assumed to emit 0.047 lb/MMBtu of PM (which is the highest single test result in the past 11 years from any of the 3 units), then the plant-wide average would be the average of 0.047 lb/MMBtu, 0.047 lb/MMBtu, and 0.067 lb/MMBtu, or 0.054 lb/MMBtu of PM. CAM Plan submitted for NGS at 5. The emission limit for PM in Condition II.A.2.b is 0.060 lb/MMBtu *on a plant-wide basis*. This indicates that the performance of any one Unit may only be considered in the context of the other two Units if the result is meant to indicate compliance. If more than one wet limestone scrubber was bypassed, this would indicate that the PM emission limits may be exceeded, which is the reasoning behind defining an excursion as having occurred "when a wet limestone scrubber is bypassed *for more than one unit* and the same wet limestone scrubber is bypassed for more than one hour" (emphasis added). Condition II.C.2.d.

As described in Condition II.C.1.b and Statement of Basis § 3.b, the four indicators that NGS must monitor to comply with CAM are all monitored *continuously*. These indicators must be monitored in order to assure compliance with the PM emission limit, in addition to the yearly performance test for PM required by Condition II.A.3.b.

In summary, the Monitoring Design Criteria meet the requirements set forth in 40 CFR § 64.3 and NGS has submitted the documentation required by 40 CFR § 64.4. Consequently, the CAM requirements have been incorporated into the Title V permit to assure compliance with the applicable PM emission limits and no change has been made to the permit as a result of these comments.

Comment 23:

The signatories request that operators be required to install continuous particulate monitors to prove compliance with PM emission limits rather than relying on a CAM plan. John Barth Comments at 3.

Comment 24:

Given the significant deficiencies identified above with the proposed CAM plan, NGS must instead install a particulate matter continuous emission monitoring system (PM CEMs) to continuously measure and report particulate matter regulated in the NGS Title V permit. John Barth Comments at 5.

Comment 25:

NGS must comply with this requirement by installing, operating, and reporting the results particulate emissions through the use of PM CEMs. John Barth Comments at 5.

Comment 26:

We recommend that NGS be required to use PM CEMs. PM CEMs have been installed at numerous coal plants across the nation. John Barth Comments at 5.

Response to Comments 23 through 26:

Condition II.A.2.b. contains the emission limitation for PM and states that "no owner or operator shall discharge or cause the discharge of particulate matter into the atmosphere in excess of 0.060 lb/MMBtu, on a plant-wide basis, as averaged from at least three sampling runs per stack, each at a minimum of 60 minutes in duration, each collecting a minimum sample of 30 dry standard cubic feet." In addition, Condition II.A.3.b. requires annual performance tests for PM, the results of which indicate compliance with the emission limitation. The performance tests are the only numeric indicator of PM emissions required by the emission limitation. Compare this to the SO₂ emission limitation in Condition II.A.2.a., which limits emissions to "1.0 pound per million British thermal units (lb/MMBtu) averaged over any three (3) hour period, on a plant-wide basis." The latter implies that numeric SO₂ emissions be monitored continuously in order to comply with the emission limitation.

While it is true that CEMS may be used to comply with CAM, as illustrated by the Aquila-Sibley Generating Station in Missouri, that does not indicate that CEMS is the only way to comply with CAM. The TGD CAM at 2-21 specifically mentions that in selecting a monitoring approach, the facility should evaluate its current monitoring procedures and determine if they can be modified to meet 40 CFR Part 64 requirements. Subsequent steps include selecting the most reasonable approach that meets 40 CFR Part 64 criteria. If monitoring can be modified and appropriate indicator ranges can be

established, then there is no need to consider more expensive and less familiar methods of monitoring, such as PM CEMS.

The current monitoring set forth in Condition II.C fulfills the requirements of CAM and, therefore, PM CEMS is not considered "the most reasonable approach" for monitoring compliance with the PM emission limitation. TGD CAM at 2-23. Therefore, no change has been made as a result of this comment.

Comment 27:

The NGS plant has recently undergone numerous physical changes that may alter the technical findings and assumptions in the CAM plan. The Navajo Nation should order NGS to update the data and information presented in the CAM plan. John Barth Comments at 5.

Response to Comment 27:

According to the permittee, all of the changes that have been made to the ESPs are expected to improve reliability and therefore reduce the probability that ESP chambers will need to be taken out of service. No changes have been made to the ESPs that are expected to affect the basis or validity of the indicators proposed in the CAM plan.

The PM emissions from Units 1, 2, and 3 are controlled by ESPs which were constructed in 1970. The wet limestone scrubbers for each Unit were installed in 1997, 1998, and 1999 for Units 3, 2 and 1, respectively. The installation of the wet limestone scrubbers did not affect the ESP performance or necessitate any ESP configuration changes. The performance test data that were used to establish the indicators proposed in the CAM plan were obtained after the installation of the scrubbers. Therefore, these physical changes do not alter the technical findings and assumptions in the CAM plan and no change has been made as a result of this comment.

Comment 28:

In issuing the Title V Permit for Navajo Generating Station, EPA must consult with U.S. Fish and Wildlife Service over the effects of permitted activities to ESA listed species and critical habitat. John Barth Comments at 6.

Response to Comment 28:

Pursuant to Section 7 of the Endangered Species Act ("ESA"), 16 U.S.C. § 1536, and its implementing regulations at 50 CFR Part 402, U.S. EPA is required to ensure that any action authorized, funded, or carried out by U.S. EPA is not likely to jeopardize the continued existence of any federally listed endangered species or threatened species, or result in the destruction or adverse modification of the designated critical habitat of any such species. NNEPA is issuing this Part 71 reopened permit pursuant to a delegation from U.S. EPA, and so it is subject to compliance with the ESA. However, this permit

does not authorize the construction of new emission units or emission increases from existing units, nor does it authorize any other physical modifications to the facility or its operations. Therefore, NNEPA and U.S. EPA have concluded that the issuance of this permit will have no effect on listed species or their critical habitat.

Comment 29:

EPA has recognized that PM CEMs have been installed and operated at numerous coal plants in the United States. Attachment 1, p.3 hereto. An example is the Sibley power plant. See Attachment 2 hereto. John Barth at 5.

Response to Comment 29:

Even if the two plants were comparable, it would not be necessary to require a PM CEMS to comply with CAM if NGS has other suitable regulatory monitoring approaches already in place. The reasons why the existing CAM plan provides a reasonable assurance of compliance is detailed in the Response to Comments 16 through 22. The indicator ranges specified in Condition II.C.1 comply with the requirements of 40 CFR § 64.3(a)(2) and (3) and reflect proper operation and maintenance of the control devices. There are four distinct indicators to further assure compliance, including one indicator range, Condition II.C.1.a.ii, that is established as interdependent between more than one indicator.

Comments from Robert K. Talbot on behalf of SRP (Comments 30 through 31)

Comment 30:

SRP wishes to clarify that the permit conditions associated with the FIP in Condition II.A. have already been through the public notice and comment process. Accordingly, SRP encourages NNEPA to consider only those comments that are related to Conditions II.C. (CAM Requirements) and IV.C. (Compliance Certification)

Response to Comment 30:

NNEPA agrees that the FIP has already been through public notice and comment and its requirements are not subject to further comment in this proceeding, as discussed in the Response to Comments 1 through 8.

Comment 31:

Proposed Condition II.C.1.a. SRP is proposing to identify the indicators in this condition, rather than specifying the acceptable ranges for each indicator. Title 40 of the Code of Federal Regulations (40 CFR) § 64.6(c)(1)(i) states that "...the permitting authority shall establish one or more permit terms or conditions that specify the required monitoring...the permit shall specify...*the indicator(s)* to be monitored" (emphasis added).

The acceptable range for each indicator is specified in the excursion criteria identified in Condition II.C.2. Therefore, stating the ranges in Condition II.C.1.a. is redundant, and may create confusion regarding what constitutes an excursion.

Accordingly, SRP is proposing the changes that are shown below:

1. *Monitoring*

a. ~~The indicator ranges are defined by the following thresholds following parameters shall be used as indicators of the control device performance [40 CFR § 64.6(c)(1)(i)]:~~

~~(i) For each Electrostatic Precipitator (ESP), no more than 3 chambers (18 fields) shall be out of service at one time. The number of chambers/fields in service for each ESP unit.~~

~~(ii) If less than 2 spray levels are operating in each wet limestone scrubber, then for the same boiler, no more than 1 chamber (6 fields) shall be out of service in the ESP for that boiler. The number of wet limestone scrubber spray levels in service for each boiler unit.~~

~~(iii) For each wet limestone scrubber, the temperature shall not exceed 145°F on a 1 hour average, as measured by a J type thermocouple. The wet limestone scrubber exhaust temperatures at the absorber outlets of each boiler unit.~~

~~(iv) No more than one wet limestone scrubber shall be bypassed at one time, and the same wet limestone scrubber shall not be bypassed for more than 1 hour. The wet limestone scrubber on/off signal of each boiler unit.~~

Response to Comment 31:

Pursuant to 40 CFR § 64.6(c)(1)(i), “the permitting authority shall establish one or more permit terms or conditions that specify the required monitoring...at a minimum, the permit shall specify...the approved monitoring approach that includes...the indicator(s) to be monitored” (emphasis added). “The CAM approach establishes monitoring for the purpose of documenting continued operation of the control measures within ranges of specified indicators of performance...that are designed to provide a reasonable assurance of compliance with applicable requirements” and “indicating any excursions from these ranges.” TGD CAM at 1-1. The indicator range is the most important aspect of the CAM plan as it provides reasonable assurance that the emission limitations or standards will be met. See, e.g., 40 CFR §§ 64.3(a)(2), 64.6(b). An excursion is defined as a departure from the indicator range established for monitoring. 40 CFR § 64.1. Therefore, it is

appropriate to include the indicator range in the monitoring requirements as well as defining the excursion, or departure, from that range.

The statement "the acceptable range for each indicator is specified in the excursion criteria" is incorrect. The excursion criteria define the *departures* from the acceptable range for each indicator, not the acceptable range. For the purposes of certifying compliance, an acceptable range must be specified. No changes will be made as a result of this comment.